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Original Communications.

SOME POINTS CONNECTED WITH OVARIAN-UTERINE OPERATIONS.

BY E. H. TRENHOLME, M.D.
Professor of Gynecology in the Medical Faculty University of Bishop's College, Montreal.

(Read before the Canadian Medical Association, Quebec, 19th August, 1886.)

In this brief paper it is my desire to refer to some of the details connected with operations for the removal of the uterus, or its appendages.

It is not my intention to refer to the diagnosis of uterine ovarian disease, nor deal with the after treatment, to any great extent.

With regard to the preparing of the patient for the operation, I would advise you not to resort to purgatives, especially avoid aloes and castor oil, both of which favor congestion of the hemorrhoidal vessels, and consequently renders the patient more liable to inflammatory action. The bowels should be brought into gentle action by diet and mild laxatives; avoid emptying the bladder, especially in extirpation of the uterus, its presence being easily recognized when full and not so liable to be injured; the legs should be wrapped in cotton wool, especially in cold weather, and the temperature of the operating room not less than 85°. The cotton wool can be removed after reaction has been established.

There should be ready for use, a couple of dozen of hot towels, which are to be applied, as need may arise, around the body and over the abdomen during the operation; the temperature of the exposed bowels and surface of the body can in this way be easily maintained. It also protects the patient from escaped fluid and blood.

I prefer to stand on the right side of the table, which is placed diagonal to the window, so as to allow the light to fall directly upon the abdomen of the patient.

The instruments required for these operations need not be very numerous nor complicated; generally speaking a scalpel, scissors, director, half a dozen Keberly's forceps, three or four sponges, silver wire, shoemakers' thread, and horse hair, a needle-holder and needles will suffice. I would press the importance of having clean sponges, instruments and hands, and allow no explorations of the parts during the operation by other hands than your own. Not only must the sponges be clean, but they require careful washing during the operation in plain water, and then squeezed out of carbolized water before handing back to the operator. This part of the work should be entrusted to a competent assistant; abundance of boiling water and water that has been boiled only should be used. If this is attended to it matters little whether or no carbolic acid is used. It is well, however, to have all instruments, at the time of operation, kept in 1 to 20 solution of carbolic acid.

For ligating the pedicle and all vessels, No. 20 shoemakers' white thread, single or double, well carbolized, is all that is needed. My reasons for preferring this ligature to all others are, that it is quite strong enough, even single, to secure all the vessels

that should be enclosed in one ligature, that it affords a safe knot, is easily disintegrated and removed by absorption. This ligature should be soaked at least 24 hours in pure carbolic acid before using, and not allowed to come in contact with water, and for convenience it may be cut into lengths of about 15 inches and allowed to stand in pure alcohol. For closing the abdominal wound there is nothing better than silver wire for the deep, and carbolized horse hair for the superficial sutures. Great care should be taken when closing the wound to have the divided structures carefully coapted, while at the same time avoiding the inclosure of any muscular tissue—as advised by Dr. Goodell.

By attention to this last point we avoid suppuration in the track of the sutures, and save the patient a great deal of suffering. There can be no advantage from effecting union between the recti muscles. It cannot possibly strengthen the abdominal wall, and must interfere with the proper action of these muscles.

In removing the silver sutures cut the wire close to the skin, with the blades of the scissors lengthwise of the body. In this way, pain and injury of the tissues in the track of the wire are avoided. In all my operations I use horse hair for the superficial sutures, and never, in any instance, has it slipped or caused the slightest irritation. As to the abdominal wound there is much need for good judgment in selecting the best place and mode of making the incision.

It is most important to confine the wound, as nearly as may be, to the medium line midway between the umbilicus and the pubis. In no case should the incision be extended toward the pubis nearer than one and a half inches. The reason for this is that the lower parts of the abdominal wall are the most important for sustension of the bowels, and also because the ligamentous structures of that part when once divided are difficult to co-apt and retain in juxtaposition till union takes place. A small incision of 1½ to 2½ inches is all that is needed in most cases of ovariotomy or removal of the uterine appendages, and when this wound is properly made, it unites perfectly and becomes almost obliterated after a few months.

The abdominal incision should be made in the median line, so as to divide the sheath of the recti muscles without cutting a single muscular fibre, for the reasons already given. The division of the skin and adipose tissue should be made at one stroke of the scalpel; it is worse than mere waste of time to divide the structures upon a director layer by layer; it is a bungling way to operate, and leaves the edges of the wound in such a state as to interfere with primary union. Care is needed in entering the peritoneal cavity; but be sure you are in the cavity before proceeding further with your operation—I have seen more than one operator attempt to enucleate the cyst before cavity had been reached.

In ovariotomy or spaying, having reached the pedicle, it should be ligated in small segments, taking care to avoid wounding any vessel, and when possible ligating the larger vessels by themselves—use the linen thread, tie firmly and cut off short—you need not fear hemorrhage. Always divide the distal end of the pedicle with the scissors, and at least ¼ of an inch from the ligature. I need not refer to the importance of thoroughly cleansing the cavity, and introducing a drainage tube when necessary or a piece of carbolized lint. It is not advisable to allow a drainage tube to remain longer than 36 hours.

We have already referred to the closure of the wound and, therefore, speak of external supports. I advise the use of carbolized gauze to the wound, a pad of 6 or 7 thicknesses, 3 inches wide, placed on the wound, and kept in place by 2 or 3 straps of rubber plaster, not more than 10 inches long. I allow no other dressing, except in those cases where the tumor removed was of enormous size and the parieties flabby, when an abdominal bandage is applied for 24 or 36 hours.

Bandages are of no use, they greatly inconvenience the patient, and interfere with the use of hot water fomentations which are of great comfort and service in almost all cases for the relief of pain and arrest of threatened inflammatory action. Another point is, that I allow my patients to move in the bed so as to secure the most comfortable position. If the vessels are properly secured there is no danger of hemorrhage, and the relief from a constrained position, long maintained, is of great value in securing nerve and muscular rest. I also believe such movement favors the restoration of the natural position of the bowels, which sometimes become deranged during the operation. Anyway, I have never seen any ill effects from such movements.

With regard to removal of uterine fibroids I have been led to vary the operation a good deal. When the growth is large, I think it well to divide

the mass in a vertical line, having, of course, constricted the pedicle to prevent bleeding, and then having enucleated the growths I form the stump of the uterine tissue only, making the V incision, referred to in a former paper upon this subject. This mode of forming the pedicle has been used by myself for some years; yet inasmuch as Auguste Martin has adopted the same procedure, I am unable to say which of us is entitled to priority. One great advantage in thus operating is that a pedicle can always be secured, and the vascular connection of the flaps with the pelvic circulation need not be completely cut off. By this procedure the roof of the pelvis is maintained for the support of the abdominal viscera. The quilting, or shoemakers' stitch, used by me to co-apt the flaps suffice to control all hemorrhage after the ligation of the uterine arteries. The advantage of this mode of dealing with the pedicle requires no special pointing out. Another thing to which I would refer is the value of linseed tea enemata; they greatly facilitate the passage of flatus, and give much comfort to the patient, while they are valuable for the sustentation of the patient at a time when but little nourishment can be administered by the mouth. The value of hot water fomentations in threatened peritonitis and cellulitis is worthy of more attention than is generally supposed to be necessary. To be useful, however, they must be efficiently applied, and here I would say trust no one to do the work without you have seen that they can do it well.

As to medicinal treatment I hold but little to it. Aconite in solution, in 2 or 3 drops doses every 4 hours, is of some value when the pulse is wiry and quick, and the skin hot and dry.

For the distress arising from flatulence I have found caraway tea frequently do good service. When possible avoid using the catheter, allow the patient to pass her urine voluntarily.

There are many points connected with uterine ovarian operations which I have not alluded to, but have briefly referred to some things that I deem to be original, and to others that, perhaps, are not generally known. My main object, however, has been to elicit a discussion, and if in this respect my hopes are realized I shall be satisfied.

An interesting discussion followed upon the reading of the paper, a report of which will appear in the "Transactions of the Canadian Medical Association.

Society Proceedings.

MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

Stated Meeting, June 11th, 1886.

T. G. RODDICK, M.D., PRESIDENT, IN THE CHAIR.

Lupus of the Feet.—Dr. R. J. B. HOWARD again exhibited the boy, shown at a previous meeting, to show the effect of treatment. The history of the case is as follows:—Boy, aged 12, good family history, was brought to the Dispensary on account of a cough. He was found to have bronchitis, which improved under treatment. Dr. Howard was asked to see his feet, which were said to be "breaking out" on the skin. He has angular curvature, involving the lower dorsal region. First noticed when 3½ years old. His feet were first affected in his sixth year. A small "scurfy" spot appeared on the right foot, spreading steadily, and healing at centre. When seen, it appeared as a serpiginous patch, about 4 inches across. On the right ankle and instep, smaller similar patches were seen, also on outside of right little toe and left great toe at metatarso-phalangeal joint. The patch was covered with a crust or scab of somewhat papillary appearance. No pain or tenderness, and never ulcerated. Such was the condition when brought before the Society on May 1st. Following the advice then given, he ordered poultices to remove the crusts, when the appearance presented was that of a typical cutaneous lupus. The acid nitrate of silver was then applied to each tubercle. Great improvement was evident.

Extirpation of the Uterus per Vaginam for Epithelioma.—Dr. PERRIGO related the case as follows: R. B., aged 31, unmarried, but had an illegitimate child ten years ago. Family history good. Father dead from cardiac disease. Mother is still living. Has four brothers and four sisters, all living and healthy. Patient began to menstruate at 13 years old, was always regular. Felt perfectly well after her confinement. Four years ago had an illness which kept her in bed for two or three weeks, the most prominent symptoms of which were severe pains in both legs, from the hips downwards. While convalescing, had some uterine hemorrhage, occurring in the interval between the menstrual periods. About two years after this illness she began to menstruate more profusely and more frequently until, during the

last year, she was "unwell all the time." Consulted several physicians, without receiving any benefit. No examination had been made by them. Never complained of any pain in connection with the hemorrhagic discharge. During last winter her health and strength suddenly began to fail. In the spring she entered the Western Hospital. When examined, the presence of epithelioma was discovered, involving the cervix and a very small portion of the vagina next to the anterior portion of the cervix. Pacquelin's thermo-cautère was thoroughly applied on two occasions, but with only temporary benefit. It was then decided to extirpate the uterus per vaginam, as there was a capacious vagina, and, besides, the whole disease could be removed. Drs. Hingston, Kennedy and Rowell were the assistants. A horizontal incision was made in Douglas's pouch, enlarged by the finger, the uterus retroverted, after which a ligature was placed around the organ at the junction of the cervix with the body. This was done for the purpose of traction. The after steps of the operation consisted in taking up a certain portion of tissue with a threaded aneurism-needle, tying, and then dividing with scissors. Both Fallopian tubes were divided in the same way. After removal, a circular opening was left at the upper end of the vagina through which a small loop of intestine could be seen, but which did not come down. Three sutures were put in to draw the edges of the vagina together, and rubber tubing to facilitate drainage. The bladder was uninjured, and there was hardly any hemorrhage during the operation. Excepting some vesical catarrh, recovery was uninterrupted. The patient left for home six weeks after the operation.

Dr. ROWELL exhibited the uterus.

Dr. CAMERON said the patient came to him at the out-door department of the Western Hospital. She complained of hemorrhages lasting over a year. An examination revealed this malignant disease. She did not suffer any pain.

Dr. GARDNER said that hemorrhage was a very constant symptom of malignant disease. He, however, mentioned a case he had seen with Dr. McCallum, where the only symptom was leucorrhœa. Menstruation was normal, and there was absence of pain. On examining, a rapidly-growing mass, the size of an egg, involving the cervix, was found. This was removed with the knife and scissors, and chloride of zinc applied. He had never removed a uterus per vaginam. Dr. Schröder has good success, but it was not yet decided which operation was best for prolonging life.

Dr. R. J. B. HOWARD said that absence of symptoms in these cases was remarkable. He knew of a case where a woman consulted a doctor for bleeding piles, and it was found she had a large cancerous mass involving the uterus. She had no symptoms whatever.

Dr. HINGSTON said the practical question was, should we operate or not? He was in favor of operating if the disease be confined to the uterus or involving as much vagina as can easily be removed. If the broad ligaments are diseased, or if the vagina be much infiltrated, he would not operate. He was in favor of removing per vaginam, because the shock was less and hemorrhage less.

Dr. SHEPHERD said the operation in a suitable case was as justifiable as removing the rectum or tongue.

Successful Ovariotomy in a Pregnant Phthisical Woman.

Dr. GARDNER related the case: Mrs. A., mother of two children, has suffered for many years with cough, hæmoptysis, and purulent expectoration, together with the physical signs of phthisis. A tumor was diagnosed five years ago by her family physician. Was seen a year ago last March by Dr. Gardner; at this time an operation was not recommended, for, besides the patient's general health being bad, the tumor felt as if there were adhesions in the pelvis. Her menses ceased last February, and symptoms of pregnancy came on. She suffered much from nausea and vomiting, and also orthopnœa. Something had to be done to relieve this last symptom. Dr. Gardner considered his best course was to operate, and not to induce premature labor, as some recommended. Two weeks ago, with Drs. Roddick and Bell assisting, he performed ovariotomy. On opening the abdomen, the dark brownish-red uterus contrasted strongly with the pearly glistening tumor. No adhesions existed, and there was a good pedicle. Convalescence was perfect. The temperature never got above 99°F. There was very little vomiting, and the ether did not affect the lungs. The stitches were removed on the seventh day. Her breathing became easier, and the cough and expectoration lessened.

Three Cases of Cysts of the Broad Ligaments.—Dr. GARDNER briefly related three operations he had recently performed for cysts of the broad

ligaments. The first case was that of an ordinary cystoma, which he enucleated, a good convalescence following. The second case was one where he intended opening a deep abscess ; but, after getting into the abdomen, found a cyst above it this he opened, and stiched its walls to the abdominal opening. Through drainage was maintained by tubing through the abdominal opening, cyst, abscess cavity, and out through Douglas's pouch and the vagina. In this case convalescence was slow. The third case was a large sessile cyst, which was incised and stitched to the sides of the abdominal opening, and a glass drainage-tube inserted. Patient did well.

Dr. HINGSTON then read a short paper entitled "*Some Remarks on Ovariotomy.*"

Stated Meeting, September 24th, 1886.

J. C. CAMERON, M.D., 1ST VICE-PRESIDENT, IN THE CHAIR.

Case of Congenital Wry-Neck.—Dr. LAPTHORN SMITH exhibited a case of congenital wry-neck in an unmarried female, 26 years of age. Her father and mother are alive and well, and she is one of a large family, all of whom are alive and (except herself) in good health. Before her birth her mother received a severe fright, to which she attributed the girl's deformity. Ever since her birth she says she has been troubled more or less with a spasmodic condition of the right sternomastoid muscle. During the last few years the muscles of the face and throat have become involved, and now even the muscles of the lower extremities are in a state of clonic contradiction, which gives her a gait similar to that seen in locomotor ataxia. The patellar reflex is markedly increased ; were it not for this fact, and also for the fact that it was of congenital, one might think that the disease was of an hysterical nature ; for it completely disappears when she is asleep, diminishes very much when she s not observed by anyone ; while, when she comes to see the doctor, spasms of her face and neck become so very severe that her features are frightfully distorted, and she appears to be in imminent danger of suffocation ; and, indeed, feels as if she could not get another breath. The muscles of the tongue are also affected, rendering her speech stammering. The muscles at the back of the neck, opposite to the affected side, have become enormously hypertrophied in their efforts to oppose the contractions of the sterno-mastoid. With regard to the prognosis, Dr. Smith said it was not favorable in these cases, operative interference being contra-indicted ; for as soon as the sterno-mastoid is cut, the disease invades some other muscle. The treatment, therefore, is nearly entirely medical. This patient has greatly improved under 20-grain doses, three times a day, of the mixed bromides of ammonium, sodium and potassium ; but nearly the whole list of narcotics have been recommended, such as chloral, chloroform, ether, morphia and atropine ; also tonics, such as iron, stychnine and arsenic. He was alternating the bromides with iron and strychnine in the case, bromism having shown itself. Dr. Hammond reports two cures with bromide of zinc, on which he mainly depends, electricity having failed in every case in which it was tried.

Ulcerative Endocarditis.—Dr. SUTHERLAND exhibited the heart, and a portion of the right lung, from a case of ulcerative endocarditis. Patient, a man aged 35, came to the out-door department of the Hospital, complaining of being out of sorts, and said that three months ago he had been on a spree, and had slept on a bench in Central Park, and there caught cold. At the hospital he was found to be slightly feverish, and was persuaded to go to bed. While the nurse was getting a bath ready he fell back and died immediately. On the endocardium of the left ventricle was a cauliflower excrescence, one inch long, and projecting about a quarter of an inch. There was also a similar, but older, looking excrescence on one of the aortic valves. Throughout the lungs were several small ulcerating cavities.

Ovariotomy ; large Tumor.—Dr. TRENHOLME exhibited an ovaraian sac, removed from a lady at Levis, on the 31st August. The sac and its contents weighed over 70 lbs. This is the fourth operation since the last Society meeting ; all the three previous patients made a good recovery. There was excessively firm adhesions of the sac to the abdominal parietes, intestines, diaphragm and liver, so strongly adherent that the sac had to be peeled off by reaching the posterior part, and then working it off toward the front. The sack was also very friable, and in great part had to be removed piece by piece. This multilocular tumor had been repeatedly tapped, and was a good illustration of the bad effects of such treatment. The patient, though very feeble and exhausted, bore the operation well ; and when Dr. T. left her, thirty hours after the operation, her pulse and temperature were almost normal, and she was feeling well and cheerful. There was very little tympanitis ; but on the fifth

day vomiting set in, and inability to take nourishment. Though the vomiting was not severe, the patient gradually failed, and died on eighth day.

Dr. C. A. Wood then read the following paper on a

CASE OF CEREBRAL SURGERY.

I have made the presentation of a case of brain wound occurring in my practice the excuse for saying something to you about those recent advances in cerebral surgery that have excited so much interest both in this country and abroad. For example, it was generally admitted that Prof. Victor Horsley's paper on this subject, to which I shall refer later on, was the most valuable contribution made to the surgical section of the British Medical Association during its late meeting in Brighton, and we have also daily evidence of the increasing interest in the surgery of the brain from the continual reference to it in our periodical medical literature. Of course, I need hardly say that those with hospital and other extensive opportunities are most competent to give opinions of value in this department of surgery; and I trust my paper will at least be the means of eliciting expression of opinion from gentlemen present who have the best right to speak. For the notes of the case, I am indebted to my friend, Dr. Hutchison, who had charge of the patient during my absence from the city, and who saw him almost daily during the entire illness:

R. R., aged 4 years and 2 months, was running across the street with a pea-shooter, about 18 inches long, and ⅜ inch in diameter. He fell, and struck his head against the end of the tube held upright in his hand. The hollow cylinder passed through the left lower eyelid, and entered the orbit about a quarter of an inch from the margin, inflicting an injury to the brain itself. The tube entered 2¾ inches, and was with difficulty withdrawn by a neighbor, who, we afterwards learn, noticed upon the end of it some putty-like substance, mixed with blood. The accident occurred on the 10th May, about 10 o'clock, and he was first seen a few minutes afterwards. Child unconscious; extensive contusion of tissues surrounding wound; left pupil dilated, with no response to light. Right pupil is normal, and responds to light. Pulse very weak and slow, and vomiting almost constant. Respiration slow and labored. Dr. Wood took charge of patient at 10.30 A.M. There was then no response to light in either eyes, the left pupil dilated and immovable, child pale and restless, and the vomiting had ceased. There is slight proptosis. There was complete motor and probably sensory paralysis of right side, and convulsive movements of upper and lower limb, these movements being chiefly marked in right arm. The convulsions continued all day, and for a short time before they ceased there was simply spasm of right arm. At 9 p.m., right eye responsive to light; no convulsions; no return to consciousness; temperature 100° F.

May 13th.—Patient has remained in about the same condition since last note, but now shows signs of returning consciousness. Takes food with some difficulty, and when asked will protrude tongue, whose deviation to right side is marked. Bowels moved by enemata.

May 16th.—Eyes examined by Dr. Proudfoot. There is a slight serous and bloody discharge from the wound; the conjunctiva is much inflamed, and protrudes over the margin of the partially everted lid; the soft parts about the eye are greatly swollen and discolored. The apparent protrusion of the eyeball about the same as day of injury. Morning temperature 101½° F. The inflamed conjunctiva was incised, and the wound kept open by cotton drain. A week after the accident, there is a slight return to consciousness; pulse 150, temperature 101½° F.

May 18th.—Temperature, 9 A.M., 103° F., pulse 150. There is no discharge from the wound. No vision in right eye. Child partially comatose. Requested permission to have wound opened for purpose of drainage, but it was refused. Child's condition worse.

May 19th.—Morning temperature 103°; evening 104°. Restless, head extended and drawn to right side, muscular spasm being so great as to prevent its being drawn forward.

May 20th.—Temperature at noon 105°. Ordered 5 grs. quinine. Patient unconscious.

May 21st.—Dr. Proudfoot again saw the patient; made an incision over site of wound, introduced drain, and applied poultice. On the 22nd, there was a slight discharge of sero-pus from the wound, temperature fell to 103, and child became more conscious.

May 24th.—The discharge continues, but the temperature is 104°, and child's condition unimproved. This state of things continued until the 29th, when the child died comatose. To the great regret of Dr. H., he was unable to obtain a post-mortem.

There seems to me to be little doubt, however, that the track of the wound, after piercing the left lower lid, extended from a point, midway between the outer and inner angles across the floor of the orbit, injured and possibly destroyed the optic nerves, caused protrusion of the ball, passed through the roof of the orbit close to the sphenoidal fissure, and entered the brain at a point in the frontal lobe, at its base, close to the fissure of Sylvius. With the exception of the monobrachial spasm, one could hardly further localize the injury. To suppose that the point of entry was through the sphenoidal foramen would be to admit injuries to the middle cerebral arteries and other structures at the base of the brain, inconsistent with the course which the injuries effect subsequently pursued. As Gowers points out violence to the cerebral substance in the region of a motor centre will produce symptoms which are usually referable to lesions of the centres themselves. That the child died of septic meningitis appears to me to be also probable.

The question that naturally arises in a serious brain-wound of this sort is, "Will any operative procedure be of use?" When Dr. Proudfoot first saw the case with me I urged the propriety of treating this injury as I would have done any other deep puncture. Here we had a penetrating wound of the orbit involving the brain, and my idea was to remove the useless eyeball, and to attempt to set up at once direct drainage from the deeper parts of the wound after it has been thoroughly cleansed and injected with a fairly strong antiseptic solution. I would then have dressed it after the strictest antiseptic style and waited results. The parents, however, refused to permit this, and Dr. Proudfoot was not, I think, very enthusiastically in favor of the scheme. And yet, while I am not given to talk about what might have been, I am now, knowing the results which followed the wound, perfectly satisfied that such a course would, under the circumstances, not only have been justifiable, but that in the light of recent knowledge have been the proper course to pursue. As in other situations, the dangers of deeply penetrating wounds are sepsis and inflammation. Here we had a case where the patient lived nearly three weeks after the injury, so that death was not caused by the first and direct shock, but probably by the train of evils brought on by septic material conveyed into the brain and along the whole track of the wound, causing inflammation of the meninges, and possibly of the nervous matter itself. Septic absorption soon took place, the products of the inflammatory process were unable to find vent, and, further absorption occurring, death was of course inevitable. That the plan of ample and direct drainage with antiseptic dressings in brain injuries is crowned with success in apparently hopeless cases, and that recovery would not otherwise have taken place seems, to me to have been amply illustrated in recent years. This disregard of the *noli me tangere* rule which has so long obtained with most of the internal organs, is now affecting the chief nervous centres, and no one can place limits upon the extent to which it may yet be carried.

As the subject is one of great interest to me, I should like to make a part of the paper the test for remarks which will bring out a discussion of these recent advances in cerebral surgery, and, if you will permit me, I will say something about them. Of course, as everybody knows, bold and successful deeds in brain surgery were not unknown to the older surgeons; but they were, when they occurred, classical exceptions to the rule that such treatment of the cerebral structures was in the nature of things fatal. From the time when Dupuytren plunged his knife into the brain and opened a cerebral abscess, giving relief to the symptoms and leading to the ultimate recovery of the patient, many surgeons have successfully imitated him. So, too, do we find many cases of severe brain lesions doing well under the older surgeons; but there are just two factors in these cases which make the chief differences between the older procedures and the surgery of the present day—1st, more accurate diagnosis, and, 2ndly, antisepticism. A better definition of the situation, extent and character of a cerebral wound abscess, tumor (whatever it may be), is possible in our time, chiefly because of the works of men like Prevost, Brown-Sequard, Hughlings Jackson, Gowers and others.

All observers agree as to the special value of the antiseptic method in dealing with lesions of the brain. Packard says that wounds of the brain heal readily when secondary inflammation does not set in; and in speaking of their treatment, places great stress upon the employment of antiseptic dressings. Hughes-Bennett's celebrated case of brain tumor, reported in the *British Medical Journal*, for May, 1885, would have done better, said the operator, Mr. Rickman Godlee, if stricter antiseptic measures had been preserved. In a very clearly written article upon trephining (see *Annals of Anatomy and Surgery*, No. 3, Vol.

VIII), Dr. H. B. Sands thus insists upon the special value of antisepticism when the brain is involved: "Aside from those cases," says he, "in which the brain has suffered irreparable damage, I think that in future many successes will be obtained by careful antiseptic treatment of the wound, such as recommended by Lister in the management of compound fracture of the bones of the extremities. The most scrupulous cleansing of the wound, the arrest of the hemorrhage, the removal of foreign bodies, loose fragments of bone, and of detached portions of brain matter, if present, followed by proper drainage and dressings, is, in my judgment, the only means which, with our present knowledge, promises any benefit in this nearly desperate class of cases."

After one has borne in mind that trephining is now commonly resorted to for the opening of cerebral abscesses, for epilepsy— of the Jacksonian variety usually—where a traumatic cause can be assigned, that it was proposed by Gross, in 1873, and I think has been resorted to since then, for the relief of purulent meningitis, there remains another modern occasion for its performance which I shall close by speaking of. The attempt to remove a cerebral tumor by cutting down upon it after trephining was first made in November, 1885. From the article on brain tumors in Pepper's System, written by C. K. Miles and Hendrie Lloyd (the most concise treatise on the subject that I know of), a short account is given of this remarkable case, which may be taken as a type of hundreds of others known to medical readers. "Four years previous to death patient received a blow on left side of the head. A year later, twitching in tongue and left side of face. Later, twitching of left arm. Twitching increased, paroxysmal spasm, and general convulsions, with loss of consciousness. Paresis, and then slowly-developed paralysis of the fore-arm and arm. Some paresis of left leg. Double optic neuritis and violent headache." This patient was under the care of Hughes-Bennett, at the London Hospital, for Epilepsy and Paralysis. He diagnosticated brain tumor, and suggested its removal. Rickman Godlee trephined over suspected region, and removed a glioma, the size of a walnut. The patient did well until a month after, when *hernia cerebri* supervened, and he died.

Mr. Victor Horsely, the Prof. Supt. of Brown Institute, in his paper, told how the brain was searched in a similar way in three instances, all of which recovered with distinct relief from the symptoms. The patients, who had epileptic attacks of varying degrees of intensity and frequency, were, in consequence of them, absolutely unable to do any kind of work, and their lives were made miserable.

The chief points of interest lay in the attempt to simulate the symptoms in monkeys by irritation of their motor centres. The epileptic seizures, the muscular spasms, the convulsions, the paresis,—all were successfully imitated by vivisection so as to demonstrate, by a plan not likely to be called in question, the exact situation of the human cerebral lesion. The wound in the scalp was made by a semi-circular sweep of the knife, as opposed the crusial incision usually made, Mr. Horsley thinking that healing took place more quickly afterwards, and better drainage was in this way obtained. He laid considerable stress on the advisability of cutting through the brain structures parellel to the direction of the sulci, and said that hemorrhage was best arrested by filling the wound with a soft antiseptic sponge. To secure success, it was advisable to adhere strictly to the antiseptic plan throughout. The patients were exhibited, and in every case the motor and sensory disturbances were either entirely cured or so relieved that they were able to live comfortable and to do work. As Dr. Broadbent remarked, in his address before the medical section of the British Medical Association, medicine and surgery are brought into specially close relations in these matters of celebral tumors and lesions, which are medical as regards diagnosis, but surgical as far as effective treatment is concerned. So far as we yet know, brain tumors and other irritants of the cerebral centres, to be capable of sufficiently accurate diagnosis as to permit of their removal with success, must be situated in the motor zone; they must not be too large, must be single, must not be too deep-seated, and must not be malignant. This may narrow the field down to a small array of cases; but, in the meantime, while a more extended study of the cerebral functions will probably make diagnosis more easy and certain, it is something to have made worth living even a few lives, otherwise doomed to hopeless misery. It may fairly be claimed, also, that the chief bugbears of the surgeon are secondary inflammation and sepsis—insurmountable obstacles they would be even if we could localize cerebral tumors with the most positive accuracy; these are

now guarded against, as we guard against them in other departments of surgery, by following the common-sense rules of the antiseptic system.

Dr. SHEPHERD said that McEwen of Glasgow had implanted again the piece of bone removed by the trephine, previously breaking it into fragments, a good recovery following. Dr. Shepherd mentioned a case under his care in the hospital, where a man had been kicked by a horse, fracturing the bones of the skull in such a manner that one piece was overriding another; no symptoms following, he sewed up the external wound, a slight pad and bandage being placed over all. In about ten minutes the man had an epileptiform convulsion; pressure being removed, he got well and recovered completely. Another case, a man, had his frontal bone crushed in from a fall of 40 feet. He remained insensible for a few days, but got perfectly well. The wound was cleansed with solution of bichloride of mercury and iodoform gauze applied.

The CHAIRMAN said that Horsley laid great stress upon removing brain substance where it appeared to be affected, particularly in removing brain tumors.

Aneurisms of the Aorta.—Dr. KENNEDY said he had been recently asked to be present at a post-mortem examination of a man who died suddenly. The skin was yellow. There was fatty degeneration of the liver. The right lung was collapsed, and that side of the chest filled with blood from the bursting of a large aneurism of the descending aorta. A second aneurism also existed of the abdominal aorta. Dr. Kennedy understood that aneurism had never been diagnosed during life.

Dr. GEO. ROSS said that nearly eighteen months ago he had treated this man for aneurism, and with relief to the symptoms. He gave him iodide of potassium, with rest. When first seen, the man complained of rheumatism of left shoulder-blade; the pain was severe and neuralgic. He made out no bruit from the aneurisms, but downward a double, soft basic murmur. When last seen by Dr. Ross (last spring), the man was taking morphia for the relief of the intense backache.

A case of true Scurvy; death, with obscure brain symptoms; a large blood-clot found in the right temporo-sphenoidal lobe.—Dr. R. L. MACDONNELL related the case as follows: W. P., a farm-laborer from the Eastern Townships, was admitted to the Montreal General Hospital, Sept. 18th, 1886, complaining of general debility and of the presence of an eruption on his face, and the upper part of his body. Two years ago he had rheumatism, and for several years has had a slight cough. For the last 12 months his diet has consisted exclusively of bread and butter, milk, tea, sugar, no vegetables except potatoes, and no meat whatever, either fresh or salt. About the 15th of July last he began to feel weak, drowsy, and indisposed for work. A slight cough was present, with blood-stained expectoration and frequent epistaxis. The gums then became soft, tender, and prone to bleed easily; some slight ulceration being also present. Spots and patches of "black-land-blue" like bruises appeared first upon the egs, subsequently over the whole body, more especially on the chest, where the largest patch was about three inches in diameter, the smallest, the size of a pin's head. At this time his general strength was fair and his appetite good. There had been but one syncopal attack, and that occurred the day after his admission to hospital.

Present condition.—Emaciation considerable; his usual weight being 160 lbs., he weighs at present but 133 lbs. Skin dull and pasty; eyes sunken; mucous membranes anæmic. In the mouth, more especially upon the palate, there are several petechial extravasations under the mucous membranes. The gums are pale, spongy, receding, and ulcerated at the edges. Over the body generally there are numerous small purplish patches, but no large bruise-like surfaces as were formerly said to exist. Examination of lungs negative. There was a well-marked systolic murmur heard with maximum intensity at apex, also at base, and for a short distance towards the left axilla. The urine was pale in color, with little or no deposit on standing; no albumen, no sugar. The blood cells number 2½ millions to the cubic millimetre.

Treatment.—The patient was kept in bed and placed upon the full hospital diet, with extra vegetables, lemons and other fresh fruit. An iron and quinine mixture was ordered.

Sept. 22.—Patient fainted this morning, and afterwards had a slight chill. Severe frontal headache set in, accompanied by obstinate vomiting. At mid-day the pulse was 66, and weak; extremities cold; rather stupid, but not comatose; no paresis perceptible. Ordered hot bottles and a stimulant. For the rest of the day the condition did not improve, and at 2.30 A.M., on the following day, died without showing any evidence of unilateral disease.

Post-mortem appearances.—Large hemorrhage into the right cerebral hemisphere, under the aternal ventricle. Hemorrhagic infarcts in both lungs, especially the right. Sub-pericardial hemorrhages, especially over the left ventricle. A few subcutaneous hemorrhages. Body well nourished, warm, rigor mortis commencing; a number of commencing petechiæ and vibices chiefly on the front of the chest, belly and legs. There was nothing abnormal found in the abdominal cavity beyond that the bladder was very much distended. Thorax—Heart: Left chambers empty and contracted; the right full and dilated. The natural heart muscle can hardly be seen, owing to the many extensive hemorrhages under the pericardium. Lungs: The right shows many infarcts, which appear recent, the largest, at the base of the lung, measures 1¾ inches. The whole posterior part of the lung is œdematous and passively congested. The left is in a similar condition, but there are fewer infarcts. No subpleural effusions, and very little serous fluid in the pleuræ and pericardium. The aorta in no place blood-stained. Brain: In removal, the saw opened a cavity in the right hemisphere, whence blood and broken down brain matter, in no way altered or decomposed, made its escape. There was no subdural or subpial hemorrhages, and a careful dissection showed that the ventricles, though full of blood and serum, had escaped; but under the right lateral ventricle there is a large cavity, with ragged walls, occupying the whole of the right temporo-sphenoidal lobe, extending forward into the frontal and back into the occipital lobe; the lower part of right hemisphere is reduced to a mere shell; the upper part above the ventricle intact. All parts of the brain are unusually vascular.

Dr. R. J. B. HOWARD exhibited the heart, right lung, and brain, and described the post-mortem appearances.

Dr. GURD asked if this could not be a case of simple purpura hemorrhagica.

Dr. SMITH said it was unusual to see scurvy in a person living upon the diet said to have been used by this patient. Sailing vessels were not bound by law to carry lime-juice if they had potatoes.

Dr. R. L. MACDONNELL thought the whole history of the case pointed to its being scurvy; and Dr. HOWARD said that the post-mortem examination gave evidence of this disease.

Correspondence.

LETTER FROM VIENNA.

Editors CANADA MEDICAL RECORD.

DEAR SIRS:—In a previous letter I spoke rather enthusiastically in favor of that centralizating system of teaching which one finds in Berlin as contrasted with the divided clinical opportunities to be met with in London. This characteristic of the Berlin Faculty is even more plainly marked in the University of Vienna, and in just so far it is superior to any other medical teaching centre with which I am acquainted. Partisans of other schools and systems, while admitting the advantages of a practically unlimited supply of material for clinical purposes, deny the superior excellence of such didactic teaching as is comprised in the courses of the Wiener Universität. I am not in a position to give an opinion upon that question; but it seems to me that the value of a course of lectures is largely determined by the presence or absence of such illustrations as may be drawn from the wards or dead-house of a large hospital. Without going further into this question it will be sufficient to indicate the advantage of producing in a set course of lectures upon, we will say, eczema, examples of the many varieties of this disease, only to be done in such immense institutions as the Vienna hospitals by lecturers possessed of power held by the professors in the German and Austrian universities. The Allgemeine Kraukenhaus is a group of two-storied, old, and unimposing buildings, arranged about the four sides of several courts, and containing about 3000 beds. Within the grounds of this immense hospital are the meddical, surgical, obstetrical, special and private wards, the buildings devoted to the administration, the lecture rooms of the different professors and assistants, rooms appropriated by *privat docents* kliniks of attendants, the pathological institute, museums, refreshment department and all the paraphernalia of teaching the divine arts of medicine and surgery.

It is practically a State Hospital, for the outlying municipalities send patients to it; and they, with the central government, furnish the large sums necessary to keep it in efficient working order. I have said that the buildings are old; I must add that from a sanitary point of view they are not specially healthy, but in these days of antisepticism the grosser forms of "dirt" do not cause

that amount of apprehension which they formerly did. One influence, however, must not be overlooked both here and in Berlin, and that is the privilege possessed by convalescent patients of going out into the court-yard garden to meet their friends. This continual out-door communion, in a tree-covered garden, with those the patient most loves, and the chance of doing it as soon as he can walk or be carried out, is an influence not to be despised. How far the further privilege of buying beer (to be drunk upon the premises) from the refreshment booth close at hand operates for good to the patient it is not easy for an outsider to judge. To these *cafés* in the court-yard repair patients, nurses, students and visitors ; beer and light wines are bought and drunk just as in any other *café* of the city; and all is lovely. It must be remembered that the Austro-German appears to live mainly for beer. He does other things besides the drinking of beer, but he does nothing else with the same thoroughness and the same complete satisfaction. One must understand this before he wonders greatly at the existence by authority of a beer garden attached to the largest hospital in the world. In a general way what I have said in a previous letter with reference to the Berlin Medical Faculty is also true of Vienna. The professor of each branch exhibits the didactic course proper to his chair ; his assistants prepare his illustrations, assist him at his lecture or demonstration, and in his absence deliver his lectures for him. The institution of the *privat docent* is in special force in Vienna, and here, I think, mainly lies the difference between Berlin and Vienna which constitutes the special excellence of the latter. There are *privat docents*, as everybody knows, attatched to all German universities; but it is here in Vienna that they are most numerous and most useful. The function of the *privat docent* resembles more that of a tutor than a professorial assistant. He is appointed by the University to teach some particular branch which he does by the formation of classes. In the Medical Faculty he has certain teaching privileges in the Kraukenhaus ; and may, for instance, set up a klinik for that purpose. In this way he establishes a claim upon vacant assistant professorships in Vienna, or to a higher dignity in some minor faculty. The great goal to which the ambitious *privat docent* aspires is a Vienna professorship, and I believe the system now in vogue there ensures, as much as any system can, the appointment to professorships of the men best qualified to fill them. To return to the question of learning his art, the student in medicine, having made up his mind what courses he wishes to pursue, will find little difficulty in joining at almost any season of the year (except in midsummer) classes for the study of the chosen subjects. It has been stated to me, and I have reason to believe, that a man can study by these means any subject whatever in the whole range of medicine and surgery, and that full instruction with adequate illustrations when feasible clinical demonstrations can be had at almost any time in Vienna. That is to say this system of semi private instruction is so extensive that one is practically independent of the regular university courses which, however, the wise and prudent student will in no wise neglect. Here, as in Berlin, most, the best, tutors understand our language, but the English-speaking student who learns German is in a much better position to appreciate the medical advantages of the Great Austrian school and hospital than he who relies entirely upon his knowledge of English.

The Vienna Faculty includes a brilliant array of names, and among the assistants one finds some who are equally as well known as are the professor themselves.

Foremost of all stands Billroth, the world renowned surgeon, gifted apparently with perennial youth. I saw him remove by a combination of enucleation and incision several sub-peritoneal, uterine fibromata, and one large submucous fibroma. The wounds in the uterus were stitched up, the abdominal opening in the peritoneum, the muscular layer and the skin were all separately dealt with, and strict antiseptic precautions (no spray) were observed throughout. The operation lasted an hour and a half, the anæsthetics employed being a mixture of absolute alcohol and ether, of each one part, and chloroform three parts.

Although, on account of the case with which special courses upon almost any subject or any department of a *subject can be obtained* in Vienna this city offers *many inducements* to specialists. Vienna is as little the home of specialism as London. It does not follow that because a man is a surgeon, teaching some special branch of this important subject, he should restrict himself to its practice. It seems to me that there is no natural distinction made in surgery between the various abdominal organs, and why a surgeon's ability to perform cholecystotomy should unfit him for the

performances of hysterectomy is one of those mysteries not to be pierced by the average eye of wisdom. That the ability to diagnose and treat new growths present in the female pelvis should unfit the surgeon for similar work in the male cavity, is another one of those paradoxes that the profession in the new world is responsible for. There does seem to be many reasons why the division into surgical and medical departments of our profession should finally become general in America. It works well in England, and the lines that divide the one from the other are natural and not arbitrarily placed, but it seems to me that the present craze for emasculated specialists is likely to work harm to the interests of the public whose trusted servants we are, and that respectable body of which we esteem it an honor to form a part. Of course the subject is too broad to be argued here, but, as far as I could learn, the feeling among those well calculated to speak, both in England and in the German cities I have visited, the disposition is plainly to deprecate that sub-division of general work of which we have had so many illustrations in our own country. The pathological work in which I was particularly interested is well conducted. The Pathological Institute is a large new structure, whose architectural arrangements are more in keeping with the other beautiful and imposing University buildings of the Austrian capital than with the low and antiquated structures of the *Kraukenhaus* which surround it. Here, too, is the bacteriological laboratory, by no means as complete or as extensive as that of Koch, but capable of accommodating many students. When I left Berlin the classes of that teacher were in full blast; but here, in common with those in most other branches, the overpowering heat is making itself felt, and every student and teacher who can get away is thinking of his summer holidays. We were shown a large number of gelatine cultures, liquified and so rendered useless by the extremely high temperature, a sufficient reason, it appears to me, for a sessional repose from bacteriological work.

I suppose it is only right to consider everything in comparing the merits and demerits, as medical centres, of Berlin and Vienna. With this object in view the reader must be reminded that from its southern position Vienna is a much hotter city than Berlin; and a residence for work in the former city, during the summer months, is not usually pleasant, while in Berlin the summer is generally delightfully cool. They tell me, also, that if the student will live like an Anglo-Saxon christian and not lead the life of an Austrian barbarian, it will cost considerably more in the southern capital than in Berlin.

Not only for its bearing upon the subject of antisepticism in general, but also on account of its special reference to the obstetric use of antiseptics, the record of the great lying-in department of the Kraukenhaus is extremely valuable. In one of the oldest and dirtiest buildings of this collection of hospitals an immense number of women, chiefly of the lowest class, are yearly confined. The previous history of the institution had been one of puerperal fever, septic poisoning, prolonged convalescence, and a high death rate—all attributed to every conceivable cause but the correct one. But now all but the malhygienic building itself is changed. The spray is not employed; nor are vaginal douching, bandages or napkins permitted; but the linen is changed a dozen times a day, if need be, to present always *a perfectly clean and absorbent surface to the discharges.* Iodoform is blown over the vulva and between the labia. The patient gets up early, and the results of this treatment are simply surprising. The forceps are sparingly used, but version seem to be a common operative procedure. Ephemeral fever is uncommon; and when discovered is regarded as a proof of the presence of septic matter in the uterus or vagina, and the patient is treated accordingly, usually by the uterine curette and antiseptic douches. The beds themselves undergo periodical washings with corrosive sublimate and other germicide solutions, and painted often enough to ruin any ordinary lying-in hospital ("supported by voluntary subscriptions"); but what matter as long as a kind, paternal government pays the bill? I am aware that there are sceptics who regard this dusting with iodoform and the impregnation of the wards by its sweet odor as a work of superarogation and of little value to the patient. These same authorities class it with the bell ringing and incense burning employed by those well-intentioned priests, who vainly tried thereby to drive out several severe puerperal plagues, and they hint that there are superstitions in medicine.

Be that as it may the results in this branch of the Kraukenhaus are even more decided than those of its other departments, and its methods are at least worthy of a trial by such of our own institutions as can afford the expense.

I must not forget an encroachment upon the liberty of the subjects possible only under an autocratic government like that of Austria. Should the temporary possessor of an "interesting" case decide to leave the State hospital and obstinately persist in his determination long enough to die outside of it; the professor of pathology has the legal right to order his body to be brought back to the *post mortem* room of the Pathological Institute, there to be dealt with in accordance with the dictates of his pathological conscience. This law is, I think, to me, of almost any case likely to be of special interest to science. There are no such additions as "the friends could not be prevailed upon to permit an autopsy." "I regret that I was unable to obtain a *post mortem*" in the report book of the Austrian professor. "Once a patient always a patient" should be the motto of the Allgemeine Kraukenhaus. Here as in Berlin the favorite germicide is corrosive sublimate, and it is used in large quantities at all operations. Absolute cleanliness as regards the patient himself, his immediate surroundings, the person of the operator, and his assistants and dressers, absolutely clean instruments, dexterity in operation—these are among the means employed in operations; and outside of them I do not honestly think there is much room to sing the praises of the murder of micro-organisms. Armed with such instruments the German surgeons have accomplished wonders—have interfered with organs but a short time ago believed to be beyond the reach of surgery, and have brought the death rate of the most daring surgical feats to that of the most ordinary operations. Coincident with this treatment of wounds antiseptically is the fact that the name of Lister is as well known and revered by the Southern Germans as one of their own professors.

I did not intend to write at such length when I first began; but as I cannot promise you another Vienna letter I fear I must close without more than a mere mention of names that deserve a wider notice—of the veteran obstetrician, Carl Braun—of his brother Gustav, almost as well known—of the eminent syphilographer Kaposi, of Späth, Nothnagel, of Albert (the German with a French name who looks like a western Yankee), and a dozen others—all professors in the Wiener Universität. Only he who has breathed the air of the Kraukenhaus can understand the reverence (almost amounting to an apotheosis) with which the University professors are regarded. No German outside of the charmed faculty circle would think of perpetrating an act of familiarity against one. No one at a klinik would speak to one without first being spoken to by him. One day, after Billroth had finished a very tedious and very difficult operation, an enthusiastic and rather "cheeky" American (a professor in some small medical school out west) walked up to him and clapping him on the back said in a very audible tone: "I say, Professor, you did that real well." I do not know whether the United States citizen is aware even yet of the enormity of his offence, but he must have suspected from the ominous silence that followed his remark that there was something wrong somewhere. The rage for practical work and for clinical instruction being the special feature in the Viennese school, one is not greatly surprised to find all sorts of devices whereby that desirable end can be attained. For example, on payment of 60 krentzers per hour, one can obtain the services of a woman who has lost or contrives to conceal the reflex irritability of her larynx, stomach and throat, on which to practice the various processes in laryngoscopy and pharyngology, washing out the stomach, etc., etc. She also carries a bag containing the necessary instruments, and will even aid the tyro in his efforts to learn their use! Many Canadians and other Americans are here. I am specially indebted to Dr. J. C. Cameron and Dr. Duncan for acting the part of cicerones. I hope to be sufficiently revived by the sea air of Brighton to send you some account of the annual meeting there of the British Medical Association.

WIEN, 23rd July, 1886.

Progress of Science.

THE TEST FOR ALBUMEN IN THE URINE.*

In a Clinical Lecture, delivered at the Philadelphia Hospital, Professor James Tyson, Physician to the Hospital, and Professor of General Pathology and Morbid Anatomy in the University of Pennsylvania, says: I shall to-day fulfil a promise made some time ago, to devote a lecture to a consideration of the test for albuminuria, with especial reference to certain more delicate tests recently proposed.

To begin, I shall first show you the ordinary heat test for albumen in a specimen of urine which contains a considerable quantity. It is a property of albumen to be thrown down by heat, provided

*From *The Polyclinic*, for July, 1886.

the form in which it is present is neither acid albumen nor alkali albumen, which are respectively combinations of albumen with a small amount of acid and alkali. In this urine a precipitate follows the application of heat. As most of you know, phosphates are also thrown down by heat in a neutral or alkaline urine, but they are redissolved by a small quantity of any acid. Such addition does not, however, in this instance, cause solution of the precipitate, and it is therefore albumen. A possible source of acid albumen is this—if it should happen that there is the least quantity of acid in the test tube, to which albuminous urine is added, a combination takes place, and acid albumen is produced which is not precipitated by heat. While heat does not throw down acid albumen, nitric acid always does; and if the test is applied in the way which I shall show you, it is not likely that any significant amount will be overlooked.

Now let me show you the defect of the ordinary method of testing. This urine is alkaline in reaction, and although it may contain considerable albumen, there will be no precipitate on the application of heat, for albumen is not precipitated from an alkaline solution, unless there be a large amount present. I apply heat to this specimen of alkaline urine, and, as you see, there is no change in its transparency. I add a few drops of acid and still there is no precipitate. We have, therefore, again a urine which is albuminous, but in which the application of heat and acid fails to show the presence of albumen. Let us not, however, conclude too hastily against the delicacy of the test. The quantity of albumen in a given specimen may be so small as to give no immediate response to heat and acid, when by waiting a little while the evidence will be plain. The quantity may be so small and the little flakes which are precipitated so fine, that they do not appreciably affect the transparency of the urine, and cannot, therefore, be at once recognized by the naked eye, but if time be allowed flakes to aggregate and fall to the bottom they can be recognized in mass. In testing for such small quantities of albumen it is essential that the urine should be perfectly clear. Under ordinary circumstances, it will filter clear through one paper, or, if not then clear, the process may be repeated. But sometimes you find a urine that will not filter clear when thus treated. Under such circumstances, liquor potassæ or liquor sodæ may be added, the urine warmed and then filtered. The phosphates are thus precipitated in such shape that they can now be filtered out, and bacteria, which also contribute to the diminished transparency, are removed at the same time. If a perfectly clear urine, treated with heat and acid and set aside for six hours, is still perfectly clear, we may conclude that there is no albumen in it. But if a precipitate is found, does it necessarily follow that it is albumen? Not necessarily. It may be one of the three things: nitrate of urea, which may be precipitated from a highly concentrated urine, acid urates, or albumen. But if the precipitate consists of nitrate of urea or acid urates, it will be redissolved on the application of heat. If it is albumen, on the other hand, the little flakes will again be diffused throughout the liquid, but they will not be dissolved. Used in this way, the test with heat and acid is much more delicate than is ordinarily supposed. This specimen of urine, which we have just tried, and which immediately after the application of the heat and acid was perfectly clear, is even now less transparent than it was a few minutes ago.

Another well-known test for albumen, which is sufficiently delicate for ordinary purposes, and one which is very useful in association with the heat acid test, is pure by Heller's or the contact method. Although this is commonly believed to be a very delicate test for albumen, it is not nearly as delicate as the heat and acid test. When used in connection with this test, it serves as an excellent control test for such albumens as although present in large amount, escape the heat and acid test on account of their combination with an acid or alkali. In applying this as well as the other contact tests for albumen, a short and narrow tube should be selected. If the tube is large, it takes longer to put in sufficient quantity of urine, and if it so long, the urine which is poured upon the acid acquires a momentum which causes it to bury itself in the acid. I place a convenient quantity of acid in the bottom, and carefully pour upon it a portion of the specimen of urine, containing a small quantity of albumen, the presence of which was not immediately apparent by boiling and subsequent acidulation. There can now be seen at the junction of the two liquids a white line, which is precipitated albumen.

Are there any sources of error to be guarded against in using this test? There is at least one, based upon the fact when a urine is highly charged with acid urates, these will be precipitated when nitric acid is overlaid with it. This precipitate is, however, easily distinguished from that due to albumen. The latter remains sharply defined between the urine above and the acid beneath, while the former rises in the course of a minute or two above the contact line. Again the acid urates are also readily dissipated by a gentle heat applied at the line of junction. More recently I have used almost exclusively instead of the nitric acid another reagent which is at least as delicate and more pleasant to manipulate. I refer to the acid salt or acid "brine" solution suggested by Dr. Roberts, of Manchester. This consists of a saturated solution of common salt to which five per cent. of hydrochloric has been added, and the whole filtered. Using some of the same urine, I first pour into the test tube some of the acid brine solution, and overlay it with the urine, and again you see a perfectly distinct white line. This test is valuable in association with the heat and acid test for the same purposes as the pure acid test. *Neither it nor the acid detect as small quantities of albumen as the heat and acid combined.*

During the past two years a number of new test have been introduced, or rather a number of old test have been revived, by which smaller quantities of albumen can be detected. Among them are the following:

Picric acid, the double salt of the potassio-iodide of mercury, picric acid with citric acid, sodium tungstate and citric acid, ferrocyanide of potassium.

As the last is the least delicate of these tests, I shall speak of it. It is more delicate than the acid brine or the pure acid test, but not so delicate as the heat and acid tests used as I have suggested. It is applied by the contact method. It has this advantage over the other tests of this class, that it does not precipitate peptones. It does, however, according to Dr. Johnson, precipitate mucin.

One of the most delicate of these tests is picric acid. A saturated solution is employed, but as picric acid is very light it is not always easy to use the contact method; sometimes the picric solution will be lighter than the urine to be tested, while at other times it will be heavier. In order to most easily employ the overlaying method, it is essential that one of the liquids employed should be decidedly heavier than the other. The difficulty referred to is experienced in testing this sample of urine. The picric acid is of about the same specific gravity as the urine, and diffuses itself rather rapidly through it; but at the same time we notice a distinct white line indicating the presence of albumen. This difficulty is readily obviated by an expedient, which certainly does not diminish the delicacy of the test; while it is held by some that it increases it, and that is the addition of critric acid to the picric acid solution. This solution is prepared by adding to one ounce of a saturated solution of critic acid. This makes the test fluid heavier than albuminous urine is likely to be. Placing some of the solution in the test tube, I pour on it the urine, at opposite side of the tube to that on which I poured the picric acid. This is done because the small quantity of picric solution adhering to the side of the tube gives the urine an intense yellow, which is not desirable. We again have the white line, which is as distinct, if not more so, as that obtained by using pure picric acid.*

There are certain disadvantages of the picric acid with or without the citric. One of these is that the color of the urine sometimes so closely approaches that of the picric acid that there is some difficulty in determining the line where the two join. This is, however, not a very serious objection. A more serious one is that quinine and the vegetable alkaloids generally are similarly precipitated; and as the former, at least, is often administered in such quantity as to appear in the urine, the white line thus produced may be mistaken for albumen. Peptones are sometimes found in the urine, and these are also precipitated by picric acid. Alkaloids and peptones thus precipitated are promptly dissolved by the application of heat. Finally, the acid urates are precipated by picric acid as they are by nitric acid; but these, again, are redissolved by a moderate degree of heat.

The next test to which I shall refer is the potassio iodide of mercury, which, if properly prepared, is about as delicate as the picric acid test. This test, which was discovered by Mr. Charles Tanret, a French chemist, consists of bichloride of mercury, 1.35 grammes; iodide of potassium, 3.32 grammes; acetic acid, 20 cubic centimeters, and distilled water enough to make 100 c.c. The double iodide of mercury and potassium solution is perfectly colorless and transparent, and is used in the same manner as the picric acid. It is subject to the same objection as precipitating peptones, alkaloids and urates, also mucin, which is not precipitated by pure picric acid. It has the advantage of being colorless, and heavier than most urines. The sodium tungstate test consist of a saturated solution of sodium tungstate and citric acid. This solution does not precipitate the alkaloids, although it does throw down peptones and mucin.

There is no doubt but that in the most delicate of these solutions, we have tests which will show quantities of albumen so small that they cannot be recognized in any other way. Picric acid and the mercuric iodide are the most delicate. But the sources of error which have been named make it necessary that they should be used with the utmost precaution. None of the objections named apply to the heat and acid test, which, when used in the manner indicated, is extremely delicate—quite sufficiently so for practical purposes. For the present we may regard the others as practically most useful for proving and confirming the results by heat and nitric acid.

*The disadvantage of the combined citric and picric acid solution exists in the fact that mucin is precipitated by the nitric acid; but the same is true of acetic and nitric acids, and, as the result of a large experience, I am forced to conclude that no mistake can result from the delicate haze of diminished transparency thus produced.

THE TREATMENT OF GONORRHŒA. *

By SENECA D. POWELL, M.D., Professor of Minor Surgery.

As we have a few minutes more, gentlemen, I will occupy the time with a brief resumé of my method of treating gonorrhœa. We are all more or less familiar with this disease, whether we are confined in the narrow field of the specialist or the broader one of the general practitioner.

I hope to emphasize a few points which have been made by others, and which I have reason to believe have been overlooked or forgotten by many of us. Those who are so unfortunate as to suffer from gonorrhœa are, as a rule, inclined to conceal their disgrace from their family and their regular physician, and this, combined with pecuniary motives in some cases, leads them to look for aid out-

* Lecture delivered at the New York Post-Graduate Medical School and Hospital, February 17th, 1886.

side of the regular profession, wherever they are promised a speedy cure for the malady. I shall speak of the treatment of gonorrhœa in its different stages, and endeavor to make plain what I consider the best course in each stage to pursue.

By gonorrhœa I mean any inflammation of the urethral tract which has been produced either by a specific poison or by the menstrual fluid, or by leucorrhœal discharges, for I know of no way of distinguishing a urethritis which has for its origin either the one or the other of the above causes. And it matters not what the cause of the urethritis may have been, the fact remains that one is as contagious or virulent as the other.

In the first or introductory stage, if I am fortunate to see the patient at that period, I feel moderately sure of giving speedy relief. I begin the treatment by giving a free purgative, preferring those drugs which act upon the lower bowel rather than a saline cathartic. If the patient has not an excessively sensitive stomach, an emulsion of castor oil, combined with a small dose of spirits of turpentine, (℥ i) acts well and thoroughly empties the entire tract. I also order two or three drachms of the bicarbonate of soda in vichy, to be taken in the twenty-four hours. Even at this early stage I have found great benefit result from frequently bathing the penis in very hot water. As an injection, a weak solution of the salicylate of soda, two to five grains to the ounce is used; but more frequently injections of hot water without any medication is preferable.

Injections should be hot.

Latterly I have aborted gonorrhœal attacks in the first stage in the following manner: After washing the urethra thoroughly with Harrison's urethral syringe, I introduce a rubber canula down below the seat of inflammation, and, as I gradually withdraw it, fill the urethra with a dry powder made up of ℥ i of resorcin and ℥ i boracic acid, which is allowed to dissolve in situ. I repeat this each day if there be any discharge, but so far never have used it oftener than three times. If the urethra is comparatively dry the day after its application, a weak solution of sulphate of zinc, one grain to an ounce of hot water, is frequently used as an injection.

The patient is ordered to remain quiet, and, if possible, in bed, while the diet is cut down to milk and mush. The syringe which gives the most satisfaction is the small rubber syringe known as No. 1 *a*, and it is always best to have your patient thoroughly understand the proper manner of using it, for I find very few who are proficient in this detail, although they, as a rule, claim to know just how it should be done. I prefer this style of syringe for several reasons:

The nib or point is very short and no injury to the sensitive and inflamed mucous membrane can result from its use; and again the capacity is small, and there is less likelihood of the secretions being driven back into the urethra by a large volume of water. An injection ought always to follow urination if possible. Large quantities vichy or other waters should be taken, not only to dilute the urine but also to facilitate the more frequent use of the syringe after urination.

The second or inflammatory stage follows quickly upon the first if we have been unsuccessful in aborting the disease. In this stage we should be extremely careful not to attempt too much, for I am positive that many of the cases which have come under my notice have been exaggerated, and much serious damage has resulted from unjustifiable interference by the patient, under the instruction of those whom he has consulted. If a patient comes to me with his penis swollen and engorged with inflammatory products, the lymphatics inflamed, and the glands in the groins painful and swollen, I make no effort at medication by the syringe, but treat the inflammation locally and constitutionally as I would were it in any other part of the body.

There is always more or less increase of temperature and quickening of the pulse, and I began my treatment by giving the tincture of aconite, in two or three drop doses, combined with liq. ammon. acetatis, one to four drachms every two, three or four hours as indicated. The penis is frequently immersed in hot water or wrapped in borated cotton, and kept wet with lead and opium wash. The amount of bicarbonate of soda and alkaline waters is increased, and the bowels relaxed with mercurial purgative. Just here let me speak of the use of saline cathartics.. For several years I have avoided them religiously, for this reason: If there be extensive inflammation, and it goes well back in the urethra near to the neck of the bladder, the mucous membrane being very much thickened, and the calibre of the canal lessened, there is, as a rule, more or less spasmodic retention of urine, and the administration of any saline cathartic will, in a great number of cases, increase this difficulty. I have seen this not once, but many times. Be as severe in your restrictions as possible, confining your patient to his bed, if need be, and adhere firmly to your low diet. All exercise should be forbidden wherever possible. If it be absolutely necessary that your patient attend his usual duties, a well adjusted support for the testicles should be ordered. Any further interference in this stage of the disease is, in my opinion, injurious, and especially would I avoid copaiba. It is not only useless, but I am positively certain, harmful—increasing the discharge, the ardor urinæ and the painful erections; occasionally causing a very extensive and persistent rash, to say nothing of its effects upon an irritable stomach. When complications arise, one must be governed by circumstances. Usually the inflammation is modified in three to five days, the discharge decreases and becomes thicker in consistency, the color being whiter, the scalding upon urinating is gone, and the disease enters into the third stage or stage of subsidence.

A physician's assistance is oftener sought at this

stage than in the first or second, as its period of duration is very much longer and may extend over many months and even years; as in a case which recently came under my care, the discharge having lasted four years. Not until after all inflammation has subsided should we use injections otherwise than as I have cited. My first recipe, upon seeing a patient in this stage of the disease, is a good cathartic; and I usually select something mild and which can be repeated every day if necessary, such as rhei and soda, or compound liquorice, pulverized. I also direct the following injection to be used every two or three hours, if convenient: Sulph. zinc, grs. viii; Morph. sulph., grs. iss.; bicarb. soda, ʒ ss. to ʒ i; water, ℥ iv.

I restrict his diet to the plainest foods. No seasoning or condiments are allowed. Coffee and tea only in moderate amount and very weak. All kinds of liquors stopped, unless my patient is an habitual drinker and is very much dependent upon his daily dram for his usual appetite and digestion. Very moderate exercise is allowable; but the use of tobacco is entirely, or nearly so, prohibited. I see my patient within the twenty-four hours, and if there be no increase in the discharge or change in its character, and there are no evidences of increased inflammation, I begin the use of copaiba; and this I consider the only period wherein it is admissible. If the second stage has lasted any length of time, I much prefer cubebs, given in powder in ʒ ss. to ʒ i doses, three or four times a day. In other words, if the mucous membrane is changed from frequent attacks of clap, or prolonged chronic inflammation, cubebs gives the best results. I have tried about every drug suitable for an injection, and believe that sulphate of zinc ranks them all. Next in my estimation is tannic acid. I never use nitrate of silver in any form for an injection. It has proven unsatisfactory in my hands so often, that I have entirely discarded it. Injections should not be strong enough to cause any pain, and are given not only for their astringent effects, but to keep the urethra clean—this being a very important adjunct in my judgment. The lacunæ, especially the larger ones near the meatus, frequently give us a great deal of trouble by acting as pockets or hiding places for the disease, and time after time it will spring up after ceasing the use of the syringe. I have in many cases passed a canula and rod armed with cotton, saturated with the resorcin and boracic acid, as given before, and wiping the urethra thoroughly in its whole pendulous portion. The small granulations which are sometimes present are more rapidly removed in this way than even by the use of the sound.

I do not mean to imply, gentlemen, that this method of treatment is infallible, but I do say that it has given me more satisfaction and more rapid recoveries than any other.—*Quarterly Bulletin of the N. Y. Post Graduate School.*

THE TREATMENT OF EPILEPSY.

By W. M. Leszynsky, M.D., Instructor in Disease of the Mind and Nervous System.

I see no advantage in treating epileptics as a "class," but believe that they should be managed individually; therefore the idea of not permitting them to use starches, sugar, etc., seems unnecessary, excepting in patients where these articles are not easily digested.

As nearly all epileptics eat excessively, if not voraciously, frequently bolting their food, it is of greastest importance that their diet should be regulated with the view to *restrict the amount* of food, and at the same time to avoid any articles which in the experience of the patient has been found to be indigestible.

The use of the homœopathic solution known as glonoin, one per cent., has in my hands frequently failed to produce any physiological effect. I have, therefore, discarded it, and when I wish to prescribe nitro-glycerine, I do so in the form of Fraser's tablets, each containing $\frac{1}{100}$ of a grain.

In cases of petit-mal, where the bromide alone has failed, the addition of belladonna has proved of unquestionable benefit. I believe that in many cases the use of *ergot* is a valuable adjunct, especially in those cases accompanied by hallucinations or paroxysms of mania. In cases of epilepsy due to inherited or acquired syphilis, the use of anti-syphilitic remedies should not be forgotten.

If we remember that epileptics frequently die while in the condition of *status*, the importance of suitable treatment while this state exists cannot be over-estimated.

For further information, regarding the causes of death in epileptics from *status*, etc., I refer to a paper on the subject which is published in the *New York Medical Journal*, March, 1885. During an experience of three years, in the City Lunatic Asylum, I treated upwards of sixty patients in whom the symptoms of "status epilepticus" were manifested.

In a number of instances, where previous attacks had been known to have occurred, the administration of an emetic, followed by a brisk purge, had frequently proved successful in aborting the attack.

In some cases in the beginning the convulsions may be controlled by administration of large doses of chloral *per anum*; but, after the attack has fairly started, chloral seems to have very little influence, excepting to intensify the exhaustion.

The inhalation of chloroform controls the convulsions during its application, but they are only held in abeyance, to return with apparently renewed vigor, shortly after the inhalation in discontinued. The use of morphine sub cutaneously seems to possess some power in controlling the paroxysms; but it has to be injected in such large doses that it appears to have hastened the death of the patient from exhaustion.

In some cases pressure over the carotid arteries seems to have temporarily checked the convulsions at their onset.

Where marked cyanosis is present, I have found venesection of the greatest benefit, at once relieving the passive cerebral and pulmonary congestion. At the same time the ice-cap and counter irritation to the nucha had been resorted to with apparent advantage.

Owing to the frequency of dysphagia, and occasionally the complication of severe vomiting, the nutrition and stimulation of the patient, when death from exhaustion becomes imminent, are very difficult.

Our only hope then remains in the administration of nutritive and stimulating enemata.

Nitrite of amyl, in this class of cases, has proved ineffectual, if not injurious.

The use of this drug is undoubtedly valuable for the purpose of aborting a paroxysm in cases of ordinary epileptic seizures, where a distinct aura is experienced; but after the convulsion is established its administration invariably complicates matters.

"The mechanism of its action is very simple; the vaso-motor spasm of the cerebral vessels, which is the initial symptom of an epileptic convulsion, is relieved, and the vessels become dilated." The following are the symptoms produced by nitrite of amyl when inhaled: "Acceleration of the heart; sudden flushing of the face; dilation of the arterioles, in consequence of paresis of the muscular layers of these vessels; a sense of extreme fullness of the brain, with vertigo; fall in the blood-pressure; lowering of the temperature."—Bartholow.

During the condition of *status*, owing to the almost continuous tonic contraction of the muscles of the neck, the return circulation from the brain is obstructed, and venous congestion follows. This is the state which is so decidedly relieved by venesection, and where the inhalation of nitrate of amyl does positive harm. I should invariably deprecate its use under such circumstances.

Many patients have a "succession of fits" without going into the condition of *status*, and I regret to say that in many such instances I have witnessed the administration of amyl from the hands of the attending physician, contrary to all teaching as to its physiological action.

BORACIC ACID POWDER IN THE TREATMENT OF GRANULAR LIDS

Dr. James L. Minor, in his paper on the use of boracic acid powder in granulated lids, gives this agent an enthusiastic recommendation in the treatment of certain forms of this troublesome disease.

Method of Applying the Powder.—The lids being thoroughly everted, the pulverized acid is freely dusted over the exposed conjunctiva with a camel's-hair brush. The amount will, of course, vary, but in most cases of granular lids, a quantity should be introduced sufficient to cover completely the parts to which it is applied. The frequency of application will vary from three times a day to three times a week—this difference depending on both the individual and the disease. It will be safe to repeat the application as soon as the disagreeable symptoms which have been relieved by the remedy begin to appear again.

Effects Produced by the Powder.—Its immediate effect is to produce a burning, gritty sensation, with some pain, lasting for five or thirty minutes, and a free serous discharge, after which relief is experienced, and the lids feel freer, lighter and smoother than before its use. This beneficial effect lasts for a period, varying from a few hours to several days. The conjunctiva at times shows reduction in swelling and thickening as soon as the irritation following its use has passed off. This is, however, more noticeable after the remedy has been used for a week or more, when perceptible thinning of the conjunctiva is observed, and clearing up of the cornea if pannus is present. When boric-acid powder is applied to succulent tissue or a swollen mucous membrane, a free serous discharge quickly appears, which lasts for ten or twenty minutes. This discharge occurs largely at the expense of the volume of the tissue to which it is applied, and it is followed by a shrinkage of the same. This is best illustrated in the nasal cavities, when they are closed or nearly so from swelling of the mucous membrane. A short time after the use of the acid the passages become clearer and freer, and this is noticeable to the examiner as well as to the patient. This serous flux is probably of an osmotic character. Its escape relieves succulent tissue of its superabundance of serum, thereby causing contraction, which facilitates a healthier circulation and better nutrition. Its action as an irritant is in the same direction, and is especially instrumental in the cure of corneal affections. The power possessed by boric of restraining micrococcal development, of diminishing diapedesis, of lessening the ameboid movement of leucocytes, and other tissue and chemical changes which it produces, are factors which enter into the theory of its action. When the powder is applied to a granular conjunctiva it not only covers the entire membrane, but enters the cracks and crevices between the granulations, and brings about the changes indicated upon the conjunctiva as a whole, and upon the granulations individually.

Cases suitable for and Facts governing its Use.—I have used boric-acid powder in all forms of granular lids, and in most varieties of conjunctivitis, with benefit. I think, however, that the papillary form of granular lids is most amenable to its influence. Pannus in every instance has been markedly improved, and in many cases cures have been effected. In ophthalmia neonatorum some cases have received benefit, but I rely but little upon the powder in purulent cases. On the contrary, it acts best when the secretion is scanty and serous. I have often noticed that the conjunctiva became less tolerant of its action after the powder had been used for three or four weeks, and in such cases the treatment has been changed with

success. Boric acid in this particular is similar to other agents in general use for the treatment of granular lids, for it is often noticed that a remedy will wear itself out, as it were, and it becomes necessary to substitute another agent for the one which has been used. Boric acid is only one of these remedies, and is no more of a specific than others, yet it is an important addition to our list of efficient remedies for a disease which is often rebellious and always obstinate and protracted. It is less painful than other remedies, its effects in this particular being often recognized by the patient, who will ask to have the powder repeated, because it is less painful and more efficient in affording relief than other agents which have been employed. Jequirity has done much toward simplifying and hastening the treatment of granular lids, but there will always remain a large contingent in which the special condition or the general surroundings of the patient will debar its use, and in such cases as these we must resort to those remedies that are known to be of value—possibly less brilliant, but entirely free from danger.—Report on opthalmology in the *St. Louis Medical Review*, Aug. 28th.

CHOREA.

By Spencer M. Free, M. D., Baltimore.

Md. Med. Jour., April 24, 1886:—After discussing the causes, Dr. Free says of treatment, that drugs have been employed extensively as to number and dosage. With few exceptions they are valueless.

The first to be recommended is, as far as possible, fresh air, out-door exercise, avoidance of excitement, proper bathing, plain and nourishing food. If the case is severe, rest in bed may be of advantage.

If a cause is discoverable, as worms, decayed teeth, nasal catarrh, etc., remove it.

Without a careful search we have come upon thirty-nine forms of treatment.

Strychnia has its warm advocates. Trousseau probably is its best exponent. He uses a solution of the sulphate. He gives it in a dose $\frac{1}{30}$ of a grain t. i. d., gradually increasing the amount to 1 gr. per day. He cautions concerning the great danger, and enjoins care and watchfulness.

West and Bouchut oppose its use on account of the danger, as a number of deaths have been produced by it.

In all anæmic cases tonics are called for. Iron in some form is preferred by nearly all writers. Radcliff uses the iodide; J. Lewis Smith the ammonio-citrate. The mur. tinct. is generally used. The emulsion of cod-liver oil with the hypophosphites of lime and soda, has been used with good effect.

Dr. Young of Philadelphia prefers cimicifuga.

Dr. West, sulphate of zinc.

Drs. Steiner and Hufland, oxide of zinc.

Dr. Weir, Mitchell, salicylate of soda, especially in cases of rheumatic diasthesis.

Dr. J. H. Carstens, propylamine.

Dr. Goodheart, rest.

Drs. C. L. Dana, Mills, Webber, Rockwell, and Beard, galvanization of brain.

Drs. Baunsi and Burnheim regard hypnotism a specific. Only a few seances are necessary.

Applications of cold to the spine, by means of the wet pack, a jet of cold water, or the ether spray, have been used quite extensively and with good effect. Some advocate the cold bath, or cold shower bath. I have used the cold wet pack in several cases with excellent results. I follow the packing by rubbing with olive oil. These cold applications are used in conjunction with internal medication.

The one remedy which is the main reliance of the great majority of practitioners is arsenic. It is usually given in the form of Fowler's solution, in a gradually increasing dose. Of those who rely chiefly upon it are Smith (J. Lewis), Leesse, Rayer, Martin, Gregory, Latter, Babington, Hughes, Begbie, Romberg, Dieudonne, Barthez, Aran, Edes, Hammond and Seguin.

Dr. Hammond strongly advocates its use hypodermically.

Dr. Gelié says that it fails in nervous and sanguine patients.

Drs. Romberg and Bourguignon agree with him.

In a series of cases, reported by Dr. Chapin of N. Y., treated entirely by arsenic, in which he compares his results with those obtained by Drs. Gray and Tuckwell, who uses the expectant plan, the result was twelve days in favor of the arsenic treatment.

Some few are doubtful as to the value of any treatment; but the results obtained show a shortening of the diseases by judicious management and medication.

THE TREATMENT OF RING-WORM.

Dr. Searlis recommends oil of turpentine for the cure of ring-worm of the scalp (*Medicina Comtemporanea*). The hair should be closely cut over the effected part, and for a short distance around, and then turpentine is to be liberally applied, and rubbed in well with the finger. This is allowed to remain for about five minutes, and is then washed off with carbolic soap, and afterward with hot water, and the patch is then painted with dilute tincture of iodine, or with a two-per-cent. solution of iodine in turpentine. The application is to be made once or twice a day, and is not painful, though it causes a slight smarting. The writer asserts that he has cured in ten days by this method cases of ring-worm that have resisted all other modes of treatment.

LOCAL REMEDY FOR NEURALGIA.

A mixture of one part of iodoform, to ten or fifteen of collodion, if spread repeatedly upon a neuralgic surface until it attains a thickness of one to two millimetres, is said to be quite effective in

the treatment of certain neuralgias. If the first application does not speedily terminate the neuralgia, those who have used this mode of treatment direct that its application should be continued. It seems especially valuable in the relief of neuralgias of the trigiminus. It also seems of value to be applied along the spine, particularly at painful points in what is called spinal irritation. These observations are by no means new, and yet they seem worthy of further consideration.—*Neurological Review.*

THE TREATMENT OF PARONYCHIA.

Dr. Sellden writes in the *Eira* that he has for years made a special study of this subject. The greater number of his patients have been miners, smiths, machine laborers, servants, and others whose fingers are exposed to injury. The disease commences in the subcutaneous tissue, and spreads to the periosteum. There are differences of opinion as to the varieties of this disease, some authors asserting that there are four others that there are only two—the deep and the superficial inflammation. Dr. Sellden, after a series of trials, found the following method most efficacious in the treatment of paronychia. When the patient will consent to incision, the finger, after it had been opened, is instantly plunged in a tumblerful of hot water which is then allowed to cool till it is nearly lukewarm. Half a teaspoonful of arnica is poured in, and a teaspoonful of the usual 10 per cent. solution is added. This mixture is highly anæsthetic; the finger is held in it for fifteen minutes, when the "bad matter" comes out. This expression is very characteristic of the phenomenon. The blood and pus exude in a thin stream about the size of a knitting needle, which forms circles in the alkaline liquid, and finally settles in a thick mass at the bottom of the glass. Fifteen minutes or half an hour after the finger is dried it is rubbed with vaseline ointment containing 10 per cent. of sulphide of potassium. The finger is then immediately enveloped in a poultice which continues warm till the next finger bath, and thus hastens the cure. These finger baths are taken from two to four times daily, and the wound is covered during the earlier days with sulphur ointment, and later with a boracic ointment. The finger is then bound up with a wadding compress and a bandage. Carbolic acid may be used in the finger bath, but Dr. Sellden gives the preference to arnica, which he finds particularly useful in all sorts of injuries.—*Lancet*, Aug. 28.

EPILEPTIFORM TIC CURED BY NITROGLYCERINE.

Dr. James P. Bramwell reports this case in the *Brit. Med. Jour.*, September 27, 1884.

The patient was 80 years of age, and enjoyed good health till nine months ago, when he was attacked by the disease in question. I shall give the history of the case in the patient's own words:

"Nine months ago, I was seized with pain in the back of the head, which came round by the joint of the jaw-bone on the right side, then spread over the face, chiefly the right cheek and temple. The muscles of my jaw were then fixed; to open my mouth was inpossible. Any attempt to take food brought on a paroxysm of this kind. These turns lasted from five to six minutes, and went on without intermission for five months. The attacks came on sometimes as often as twelve times in the twenty-four hours; during the night they were oftener and more violent, my head being often pulled back with violence. I could not wash my face without bringing on a paroxysm, and a touch of my finger, a puff of cold air, or even a mental emotion, produced the same effect. Things went from bad to worse. I then called in Dr. Bramwell, who prescribed for me bromide of potassium and croton chloral-hydrate, but only with partial relief. Solution of nitroglycerine (0.1 per cent.) was given in drop-doses three times a day. The effect of this was almost immediate, and in four days all my morbid symptons had gone. I have since then been four months in perfect health; there has been no return of the fits.

I publish this case in the hope that, in nitroglycerine, we may possibly possess a remedy for a malady which embitters life, and is indeed often quite intractable. I am fully aware what good results have accrued from nerve-stretching, or even the removal of Meckel's ganglion; but, before resorting to this somewhat formidable measure, it might be well to see if the use of the nitro-glycerine might not obviate such a necessity.

IODIDE OF POTASSIUM IN THE TREATMENT OF INFANTILE BRONCHO-PNEUMONIA.

Dr. Zinnis, of Athens, Greece, says that potassium iodide in the broncho-pneumonia of children, from one to five years of age, especially in the subacute form, as nearly approaches a specific as can be. It is most useful in the early stages. He says it lowers the temperature, reduces the frequency of respirations, and improves the local conditions rapidly. It is given in doses of eight to twenty grains. according to age, three times daily. —*N. Y. Medical Journal.*

A NEW REMEDY FOR WARTS.

Under this head a Russian physician, Dr. Subtschanioff states, in *Rusk. Mediz.* that, warts washed with the tincture of *thuya occidentalis* will, in the course of two or three days, dry up and fall off. This is by no means a new remedy, as the expressed juice of the *thuya occidentalis* or American arbor vitæ, has been used for this purpose time out of mind. This does not alter the fact that the remedy is a good one, and deserves to be better known.

ON THE EARLY DIAGNOSIS AND TREATMENT OF SYPHILIS.

By Fessenden N. Otis, M.D., New York, Clinical Professor of Genito-Urinary Diseases of the College of Physicians and Surgeons.

Syphilis is not necessarily of venereal origin. From the intimate contact which occurs in the sexual relations, and from the fact that abrasions are most common on mucous membranes, it is usually communicated through sexual contact, but syphilis may be and is frequently conveyed through what is termed *mediate contagion*—that is, by means of any substance, fluid or solid, in or upon which has been deposited the contagium or disease germ of syphilis. Thus the blood of a person may be the medium of the contagion after the second month of its acquirement or inoculation. Pencils, cups, spoons or pipes, or dentists' instruments, defiled by the saliva of a person who has syphilitic lesions on the lips or in the mouth or throat, may be the medium of communicating syphilis to an innocent person, provided only that such articles are brought into contact with an abrasion or cut on such person. Fortunately this open-lesion on the healthy is essential to the acquirememt of syphilis.

The site of inoculation of syphilis is called the *initial lesion* or *chancre*. This does not necessarily present any characteristic features when first observed. It may be, to all appearance, a simple abrasion, a crack, a wart, a vesicle, a pustule, or a papula, and yet prove to be just as much an initial lesion of syphilis as if it presented the characteristic induration and saucer-shaped excavation of the typical Hunterian chancre.

It is true that induration of a sore is always suggestive of syphilis, that there are indurations associated with venereal lesions which enable one to claim, at once, with positiveness, a syphilitic cause, and these are such as are of a cartilaginous hardness ; but in the majority of cases the induration is not a sure guide, because often not present is sufficient degree to be characteristic, and frequently not present at all. Sores, however, which indurate even slightly *after healing* are, as a rule, syphilitic.

Diagnosis of syphilis, as a rule, is impossible before the third week from the date of exposure. Abrasions or indurations, which are first discovered two or four or even eight weeks after a suspicious connection, if not otherwise distinctly accounted for, are usually initial lesions of syphilis.

And often no positive diagnosis can be made before as many months or more. This fact makes it necessary to give a guarded prognosis in regard to any and all lesions about the genito-urinary apparatus, whether abrasions, apparently simple or accidental scratches, or even points of redness, in every case when an illicit sexual contact has taken place, and to keep the individual under observation for at least seventy-five days, and no suspicious lesions appearing, before a positive assurance should be given that the danger of subsequent development of syphilis is past. Even if nothing abnormal is discovered after an illicit connection, marriage should not be entered into, nor marital relations resumed until at least that period had passed, and the result of a careful re-examination has given assurance of probable escape from syphilitic infection. Fournier cites a case where the apparent incubation was seventy-five days, Bumstead and Taylor, one of fifty days. The average is stated to be about twenty-four days.

Initial lesions of syphilis on the integument do not exhibit a characteristic induration, as for instance on the finger or on the body of the penis.

In every case when the possibility of having acquired syphilis is under consideration, an examination of the person, with whom contact has occurred, should be insisted on when praticable, and in such examination not only the genital apparatus, but the mouth, throat and anus should receive careful scrutiny. Examine not only the body for eruptions, especially the scalp—not only the lymphatic glands in the groins, but in the neck and in the epitrochlear spaces. In all cases it should be borne in mind that *recent*, *painless* gland enlargements are almost certainly due to a syphilitic infection.

In such examinations it must be remembered that the late or so-called *tertiary* lesions of syphilis are *not inoculable*, and that the presence of such lesions, whether as eruptions or ulcerations, do not indicate a capacity to communicate syphilis. On the contrary, if well authenticated as tertiary lesions or sequelæ, they go to prove that the person bearing such manifestations has not been the source of a fresh infection.

In the examination of a person, having had connection or contact with a person suspected of having syphilis, note not alone the date of such exposure as claimed, but also the date of preceding exposures, whether believed to be suspicious or otherwise, bearing in mind the fact that no feature characteristic of a syphilitic infection is likely to be present under fifteen or twenty days from the date of such contact. Observe not only the condition of lymphatic glands adjacent to any suspected lesion, but also those of the neck and epitrochlear spaces, and any enlargement should be marked and noted for future reference.

In the absence of positive evidence of syphilis, in any lesion following illicit contact, *no internal treatment is necessary*. Local measures based upon local conditions alone are advisable. If an abrasion is present, or an inflamed point or patch, or an herpetic vesicle, or a scratch, the application of a weak solution (2 grs. to oz.) of the acetate of lead, or of ferric alum in rose water, or a little powered oxide of zinc, is sufficient. If the lesion is pustular it should be cauterized and treated as a chancroid, until healing has taken place, or until satisfactory evidences of syphilitic infection are present. Every lesion, of whatever size and description, following a suspicious venereal contact, should be subjected to frequent observation, and

its progress minutely noted with reference to its possible syphilitic nature. If it heals without induration and without marked enlargement of adjacent lymphatic glands, and if for a period of twenty five days no induration develops on the site of the lesion, and no enlargement of glands has, after close observation, been discovered, then the escape from infection may be fairly assumed; but it is not absolutely safe to give a positive opinion that the lesion has been non-syphilitic until the full period of seventy-five days (previously noted as the extreme known limit of incupation) has been reached, without the occurrence of local pathological changes. On the other hand, if the lesion is a papule, from its first discovery, or an erosion situated on a papule—insensitive, sluggish, persistent—or if, after healing, it is easily abraded, or, if open, its secretion is serous and scanty, and its base more or less indurated, or if, when on the integument it becomes boggy and red, or stiffened and scaling, and if in addition the lymphatic glands in connection with it become enlarged, there is here no reasonable doubt but that the disease is an initial lesion of syphilis, and it should be treated accordingly. It is the coincidence of a number of evidences of the syphilitic nature of the local lesion upon which an early decision is based, and not upon any one, although the occurrence of any one of the above-named evidences should compel a postponement of a *positive* decision, until the full period during which secondary symptoms might develop has passed; and this is not less than six months. A well-grounded *suspicion* of the syphilitic origin of any lesion should be a bar to marriage for at least three years, or to the resumption of marital relations for a period of at least six months.

This apparently excessive caution becomes essential from the fact that if by any means the suspected lesion subsequently proves to be syphilitic the blood in such case, through an accidental scratch or abrasion coming in contact with a similar breach of surface on a healthy person, may be the means of communicating syphilis. The failure to appreciate such danger as the foregoing has resulted (in recorded and well-authenticated cases) in the communication of syphilis to innocent wives by husbands who, after careful examination by their medical advisers, had received permission to resume marital relations.—*N.Y. Medical Monthly.*

INTERNAL ADMINISTRATIONS OF CHRYSAROBIN FOR INFANTILE ECZEMA.

Stoeguart reports several cases of infantile eczema treated by small doses of chrysarobin. It is given from a thirteenth to a tenth or even a grain daily. The periods of cure did not exceed ten days. Theoretically, the drug is supposed to exert a constricting action on the capillaries of the skin.—*N. Y. Medical Journal.*

PRURITUS OF THE ANUS.

Dr. J. B. Johnson of Washington, D. C. (*Med. and Surg. Reporter*, April 24, 1886), says that the local treatment should be commenced by the institution of the most perfect cleanliness. The patient should be instructed to wash his anus well with a cloth and cold water after each action of the bowels, and then to bathe his anus with the following wash:

℞. Hyposulphite of soda ʒ ss. Carbolic acid, ℈ ij. Aqua distil., ʒ iv. Glycerine, ʒ ij.

Mix. Sig.—Shake the wash well, and use freely, after first thoroughly washing the anus with cold water.

In addition to this treatment, the patient must every night or two, after undressing for bed and washing and drying his anus, lie upon his face; and, with his hands behind him, separate his nates as widely as possible, and be instructed to strain as at stool; and while thus straining the anus will protude, and while the anus is protruding, in consequence of the strong effort, five or ten grains of pulv. iodoform must be sprinkled upon the anus from a knife or spatula, by an assistant. The minute eruption which causes this most distressing itching will be found most abundant at the junction of the mucous membrane of the rectum and the skin of the anus; and it is at this situation that the application does the most good. The patient should allow the iodoform to remain in the position of its application during the night, repeating during the day his ablutions of the anus after each action. The probability is that after two or three nightly applications of the iodoform all pruritus will disappear; but the patient should be directed to have the application of the iodoform continued three or four times a week, until he is entirely relieved.

EXTRACT OF CALABAR BEAN IN EPILEPSY.

Dr. Rusche recommends the exhibition of calabar bean in epilepsy and allied affections, and says he found it to render great service in cases in which the bromides and atropine have been ineffectual (*Deutsche Medicinal-Zeitung*, May 10, 1886). He notes the curious circumstance that better results are obtained by alternately increasing diminishing doses that when the same quantity is given continuously. The drug is to be given in the following preparation: Extract of calabar bean, 7½ grains; spirits of sulphuric ether, 75 minims; peppermint-water, 5 drachms. Dose: 5 to 10 drops for children, 8 to 16 drops for adults, three times a day. The smaller dose is commenced with the first day, and one drop added each day until the maximum is obtained, and then the quantity is diminished by a drop each day until the minimum is reached. The writer reports a number of cases in which excellent results were obtained.—*Med. Record.*

LEISTER'S LATEST ANTISEPTIC DRESSING.

Leister's latest antiseptic dressing is known as salalembroth. He uses it exclusively in his wards with fine results. It is a double mecurial salt, made by the sublimation of a mixture of perchloride of mercury and chloride of ammonium. It is very soluble, and has not been used in medicine since the time of the alchemists. All dressings—gauze, cotton, wool, bandages, lint, bedding, patients' underclothing, etc.,—are soaked in a 1 to 100 solution and dried. He colors these dressings with aniline blue, 1 to 10,000, so that when an alkaline discharge comes in contact with the dressings, the blue is removed and turns reddish, enabling him to see where the discharge has been and its quantity, however small or large, moist or dried.

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MONTREAL, OCTOBER, 1886.

CLIMATE OF FLORIDA.

A Canadian medical man, writing to us from Ocala, Florida, says: "Florida is very disappointing. It is very hot, very moist and full of Malaria. Anæmic men, women and children meet the eye everywhere."

ARTIFICIAL QUININE.

According to a report which appeared in the *Morning Post* a short time ago, Dr. Cresswell Hewett, of Lincoln's-inn-fields, has discovered the synthetical or artificial mode of making quinine, by which the price of that drug will be reduced to something like 3d. per ounce. The importance of this discovery (which was made two or three weeks ago, through the accidental breaking of a medicine bottle) is rendered greater by the fact that, while hitherto we have been depending for our quinine on the cultivation of the chichona tree, from whose bark only about 2 per cent. of good quinine can be extracted, 98 per cent. being valueless, the drug can now be manufactured without limit by a very simple process, from an article which can always be got in abundance in any part of the world. Dr. Hewett has submitted a sample of his preparation to Messrs. Howard & Sons, quinine munufacturers, Stratford, who had expressed surprise at the result of their analysis, the sample being equal to the best quinine in the market. The discoverer is about to communicate with the British Government, who annually spend in India alone about £60,000 in the cultivation of the chichona tree.

MEDICAL INCOMES IN CANADA.

The Toronto Globe (quoted by the New York Medical Journal) says: "There is only one medical man in this city who last year earned $5,000 from profession, combined with the interest he received on his previous savings. There is not one man on the list who had $4,000, and only four who touched $3,000. When we come to the comparatively modest and moderate $2,000 we naturely conclude that we shall have a full legion. But no, we have only fourteen all told who come up to this figure. When we come to between $2,000 and $1,000 the number becomes encouragingly large. As many as fifty-one of the best-known, and greatly sought, after doctors of our city are put down, under their own hands and seals as having last year lived on from $1,000 to $1,800. Some of these are professors. There remain only the unfortunates who worry along with from $800 down almost to zero. Of these, we are sorry to say, there were last year thirty-six."

A NEW HÆMOSTATIC.

Dr. Spaak, in the *Journal de Bruxelles*, describes a hæmostatic, which he accidently discovered and which he has used for some months. It consists of two parts chloroform and a hundred parts water, and presents the following advantages:—

1. It acts with remarkable promptness.
2. It has not the least unpleasant taste.
3. It has no escharotic action.
4. It is always to be had, and costs almost nothing.
5. It has no unpleasantness in its action, and does not disturb the operation.

In all operations in the cavity of the mouth and neck, a simple washing-out with this remedy is sufficient to stop the hemorrhage from the larger vessels in an instant.

The author does not state the reason of this action; he simply relates the fact.

REVIEWS.

The Medicine of the Future. By the late Dr. Austin Flint, New York, D. Appleton and Co.; Montreal, Dawson Brothers, 1886.

The late Dr. Austin Flint was appointed to read the address on Medicine, before the British Medical Association, at its meeting this year; but his sudden death transferred that duty to Dr. Billings of Washington. Among Dr. Flint's papers was found the address which he had prepared, and it is now published under the above title. The profession which held him in such high esteem will read with a melancholy pleasure this his last production. The little volume contains an excellent likeness of its author which will tend still further to enhance its value.

The Principals and Practice of Medicine. By the late Charles Hilton Fagge, M.D., F.R.C.P. Examiner in Medicine in the University of London, etc., etc., including a section on Cutaneous diseases, by P. H. Pye Smith, M.D., F. R. C. S. Lecturer on Medicine at Guy's Hospital; Chapters on Cardiac diseases by Samuel Wilkes, M.D., F. R. S., physician to Guy's Hospital, Vol. 2, Philadelphia, P. Blakiston, Son & Co., 1886; Montreal, Dawson Brothers.

The Medical practitioner cannot complain of lack of works on the Practice of Medicine, for most of the Lecturers on Medicine, at all the great English, Continental and American Colleges, have put on paper the result of their large and extended experience. The most of practitioners, from want of means, and often also from want of time for their perusal, must discriminate and select those which promise them the largest amount of information in the most readable form. They can obtain many which will answer this description, and some of them comparatively recent additions to this department of Medicine.

To this list must now be added the volume before us. It is beyond a doubt a most valuable addition to our works on practice. Its lamented author was well known as one of London's most distinguished physicians, who, during his life-time, was noted as a keen observer, and a most earnest worker in the department of Pathology. The insight he gained in this department, the handmaid to practice, is noticeable throughout his whole work, the Pathology of disease being evidently from a master's hand. In a volume so extensive, nearly nine hundred pages, more than a hurried glance is impossible, yet we have read sufficient to satisfy us that Dr. Fagge's work will transmit his name to posterity. The special chapters by Dr. Pye Smith, and Dr. Samuel Wilks give additional value to the work, that by Dr. Wilks being especially valuable. The book is printed on beautifully clear white paper, with clear type, and is altogether produced in excellent style.

Diseases of the Nerves, Muscles and Skin, being Vol. III. of Dr. Hermann Eichhorst's Handbook of Practical Medicine, and Vol. X. of Wood's Library of Standard Medical Authors 1886, (consisting of 12 vols. price, $15.00). Sold only by subscription. William Wood & Co., New York.

This volume keeps up the reputation of Wood's Library of Standard Medical authors. Those who have subscribed for this Library for several years now find themselves in possession of a great many works of much value in every department of medicine, and which they never would have obtained in any other way. We commend the Library to all our subscribers.

The students' Manuel of Venereal Diseases being a concise description of those affections and their treatment. By Berkley Hill, M.D., professor of Clinical Surgery in University College, London, and Arthur Cooper, M.D., formerly House Surgeon to the Lock Hospital, London. Philadelphia, P. Blakiston Son & Co., 1886; Montreal, Dawson Brothers, price $1.00.

We have read carefully the greater portion of this manuel, and are highly pleased with its clearness of description, conciseness of diction, and fulness of treatment. Its authors are men well known to the Medical world, who follow the work of the London Hospitals, and they have done their duty well. We commend it not alone to students but to all who desire to brush up their knowledge of a very important department of Medicine.

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REMARKS UPON ALEXANDER'S OPERATION.

BY A. LAPTHORN SMITH, B.A., M.D., M.R.C.S.E.

Read before the Canada Medical Association at Quebec, August 19th, 1886.

The attempt to shorten the round ligaments in order to correct displacement of the uterus was made more than a century ago, but failed. The operation was revived about two years ago by Dr. Alexander of Liverpool, and it now bears his name. It is a very ingenious operation, perhaps one of the most so in surgery, and one, which if it really does what it is claimed to do, will prove a short road to the cure of a numerous class of cases, the treatment of which has heretofore been tedious and troublesome. At the same time as the operation is on its trial, it is a fair subject of criticism, and I have therefore chosen it as the topic of my paper.

Before discussing the pros and cons of the case, it would perhaps be better to give a description of the operation.

Preparatory treatment.—The patient must be confined to bed for several weeks, during which time the vagina should be tamponed with glycerine and cotton, interchanged with hot douche with the Davidson syringe. No patient can be considered suitable for the operation in whom the uterus is not entirely free from adhesion, and the tissues around the uterus free from tenderness. The uterus must be perfectly and freely movable. Dr. Alexander thus describes the operation after warning anyone who intends to operate, no matter what their standing, to perform the operation a few times on the dead subject if they wish to avoid disappointment. "The pubic spine is the first landmark, and can be felt by an intelligent finger under any depth of superincumbent fat. It does not make any matter whether the finger can feel the spine clearly or not, provided the primary incision is made within a reasonable distance of it, but there need be no serious difficulty in feeling it."

"From this an incision is to be made upwards and outwards, in the direction of the inguinal canal for one and a half to two or three inches, according to the fatness of the subject. A considerable thickness of subcutaneous fat is now to be cut through by subsequent incision, until the pearly glistening tendon of the internal oblique muscle is reached. Midway through the fatty tissue an aponeurosis sometimes appears so firm and smooth as to cause the operator to think he is deep enough; and if he begins to poke about here as I have done and seen done, it is little wonder no ligaments can there be found. The first stage of the operation consists in simply cutting down upon the tendon of the external oblique muscle, until it appears clear and shining at the bottom of the wound. If the operator succeeded in hitting the spine, the internal inguinal ring with the intercolumnar fibres crossing it, can also be seen. If not, the aperture made down to the muscles can be dragged over an extensive area by retractors, so that the region can be searched until the ring is found. The finger passed to the bottom of the wound may be used to detect the spine and the ring outside, the former by its hardness, the latter by its lessened resistance, compared with that of the aponeurosis around it. The

anatomical knowledge of the operator should always be equal to the recognition of these structures—that is the spine and internal abdominal ring. There are other apertures, as the aponeurosis, and a depression filled with fat below Poupart's ligaments that sometimes simulate the internal abdominal ring. Poupart's ligament below the intercolumnar fascia running across, and the spine at the inner side are sufficient landmarks. When in doubt a close deliberate survey of the position should be taken,and no gropings in the dark made, as these are certain to lead to failure."

"Having clearly isolated the internal abdominal wound, and tied or compressed any little vessels necessary to be attended to, the next step in the operation may be entered upon—viz.: to find the end of the ligament. The intercolumnar fascia, which is generally pushed forward by the fat and other structures beneath, is to be cut through over all the extent of the internal ring, and in the direction of the longest diameter, a nerve, some vessels, fat, some bands, and the round ligament springs out of the canal immediately."

"In stout people the quantity of fat conceals all the other structures. No grabbing at the mass is now to be practised, as some have recommended. By everting all the structures upwards the round ligament can be seen generally at the lowest part, and the white, easily distinguished, genital branch of the genito-crural nerve on its anterior surface and close to it. The ligament at this stage is more or less rounded in shape, sometimes rather delicate, but an always easily recognized *flesh* coloured structure,that might be easily destroyed by forceps rudely and blindly applied. Should the ligament seem very frail, or the operator be doubtful whether he has found it or not, he should take care not to displace the structures or to destroy them by searching or pulling. The best plan in such a case is to open up the inguinal canal a little, and then re-examine what he supposes to be the ligament. No difficulty in finding the ligament need thus ever be experienced, provided the operator knows what he is about. When the ligament is clearly identified the small nerve on its surface is to be cut through, without cutting any of the ligament, then gentle traction is to be made; either by the fingers or broad blunt pointed forceps. Care must be taken not to break the ligament by such traction. Bands will now be seen holding it to the neighboring structure. These should be cut through with scissors, the greatest caution being used to avoid notching the ligament itself at the same time. With a little patience and perseverance the structure is so far free that all resistance is at an end, and it comes out as easily as if broken inside, as Dr. Mundé thought it was in his first case. As soon as it begins to peel out, and without drawing it out further, I leave that side, after covering the wound with a clean sponge, and operate on the opposite side. To do so my assistant and I change sides, so that I always stand on the side opposite to that on which I am operating. I can look thus better into the canal and draw the ligament more conveniently towards me; but of course the operation could be performed without this change of position. Having freed the opposite ligament, the difficulties of the operation are at an end, and the second stage is finished. I cannot on paper give with advantage a more detailed account of how to perform the second stage. It must be seen to be thoroughly understood. The third stage consists in placing the uterus in position by the sound, and pulling out the ligaments until they are felt to control that position. The replacing of the uterus is first performed, and it is held in position by a third assistant. The operator pulls out both ligaments almost simultaneously and gently, until the sound is felt to be slightly moved. He then hands both to the first assistant to hold, while with the curved needle, threaded with moderately fine catgut, he stitches each to both pillars of the ring by two sutures on each side, and thus secures the closure of the internal abdominal ring and the fixation of the ligament, without injuriously strangling the latter structure as it lies between. The assistant can now let go, the chafed ends of the ligaments are cut off, and the remainder stitched into the wound, by means of the sutures that close the incision. A fine drainage tube is inserted, and the wound washed out with carbolic or other lotion, before these sutures are tied. In hospital I perform the operation under the spray, and use gauze dressings. In private I dispense with the spray, and sometimes use boracic lint or absorbent cotton wool. I always drain as I believe it to be much safer, preventing any collection of pus or danger of interfascial suppuration. It may retard, in some cases the healing of the wound, but as I never allow my patients out of bed under three weeks this is not of much importance. Before the dressing is applied, in simple cases of retroversion and prolapse, I insert a Hodge pessary, and keep it in at

least during convalescence. When there is retroflexion as well I always insert a galvanic stem to keep the uterus straight during the healing of the wound. This I look upon as essential. By keeping the stem in for a month or so, the cure may be with certainty affected. An important question with regard to the third stage of the operation is, how far are the ligaments to be pulled out? My reply is to put the uterus in position and pull out the slack. The after-treatment of the operation consists in rest. The wound I generally dress on the second day, when I remove the tube, the small aperture left where they were removed being sufficient to maintain the necessary drainage in most cases. The ligaments should be allowed time to unite to the wound, to the pillars of the ring and to the canal, and for this purpose three weeks is quite short enough time. Several of my private patients have taken a longer rest and with benefit, as thus all the pelvic organs have become accustomed to their new position. The rest need not be in bed—a sofa and the sitting posture may vary the monotony of lying in bed; whilst sewing, reading, and other feminine arts may be indulged in after the first few days."

Such is the operation, and while all are agreed that it is a most ingenious one, there is a great difference of opinion among the highest authorities as to its harmlessness, efficiency and usefulness. I shall not attempt in the time at my disposal to recapitulate all that has been said about it by its leading friends and enemies. Neither shall I venture to say dogmatically that the operation may not prove a useful one. It has not been on its trial long enough for that. I shall merely endeavor to prove that Alexander's operation is not the scientific or rational treatment for displacements of the uterus. And I base my contention on several more or less well known facts.

1st. The round ligament is not really a ligament, but a bundle of muscular fibres derived from the transversalis and uterine muscle, and it follows, therefore, that it is capable of undergoing fatty degeneration, like any other muscle. This we know it does, for several of the very ablest operators who have performed the operation tell us that, in a certain number of cases, they found the so-called ligament so soft, so pliable, and so attenuated that they did not dare to draw on it; or when they did, it broke in their fingers. And these are just the cases where the uterus is likely to be displaced. In a fine, previously healthy subject dying from some acute disease, we will find the round muscle well developed and easy to discover. But this kind of woman does not have displacements; or if she does, she does not know it, because the organ is healthy. So we may conclude that when the patient has neither ache or pain, we will find the pelvic organs and the abdominal walls in a healthy state, and there will be no trouble in reaching the round ligament and pulling it out, and cutting it off. While in a delicate, badly nourished woman, where the muscular system is ill-developed, and the circulation slow, you will find the uterus congested, heavy, displaced, and you will find the round ligaments thin and weak, if you find them at all.

Even supposing that you can easily find the round ligaments and cut half of them off, and so pull the uterus up into place, I maintain that it is not the right thing to do. If the round ligaments were really ligamentous structures it would be rational to do so; but they are small round muscles. Mr. Rainey has carefully studied their structure, and has shown that they are composed of striped or voluntary muscle. They arise by 3 fasciculi of tendinous fibres; the inner one from the tendon of the internal oblique and transversalis muscles near to the symphisis pubis, and the middle and external fasciculi from the inner and outer columns of the internal abdominal ring respectively, above Gimbernat's ligament. From these attachments the fibres pass backwards and outwards, soon becoming fleshy; they then unite into a rounded cord, which crosses in front of the epigastric artery and behind the lower tendon of the internal oblique and transversalis muscles. They then get between the layers of peritoneum, covering the broad ligament, along which they pass backwards, downwards and inwards, to the anterior and superior part of the uterus into which their fibres, spreading out a little, are inserted. Mr. Rainey, reasoning from the structure of the round ligaments, says that the presence of voluntary muscular fibres proves that they do not serve as mechanical supports to the uterus.

Sappey and Cruveillier say that the round ligaments are never on the stretch, and cannot resist displacements of the uterus. Some authors state that they tilt the uterus forwards during coition so as to deepen the seminal lake at the top of the vagina.

Judging from the origin and nerve supply of the round muscle, I should say that it was the counter-

part of the cremaster muscle in the male. Now we know that the cremasther, though not so often as the round muscle, sometimes becomes so weak or the testicles become so heavy that it is unable to support them, and then we have the testicles hanging down, a very painful condition of things. What do we do in these cases? Do we cut down on the cremaster and pull out an inch or two of it and cut it off? No, we ascertain why the testicles are dragging. If it is because they are permanently too heavy from some foreign growth, we remove it; or if only temporarily too heavy from acute or chronic inflammation we support them for the time with a suspensory bandage, until we can reduce the inflammation. But if the testicles are dragging because the cremaster muscles are in an atonic state, due to the patient's general health being run down, we should rather place him on a local and general tonic treatment. And just as the man's general health returns, so will his testicles rise and cease to pain him.

You all know how the testicles may drop at examination times. In fact pain in the testicle is almost as common as diarrhœa at that time. I have over and over again known the same thing to occur to the womb, in women, under similar circumstances. Many times women have come to me with prolapsus, stating that their womb had come down suddenly as the result of a fright; while several old stagers come to me regularly every summer, during the very warm weather, when everybody and everything seems relaxed, to have their womb replaced.

Should I perform Alexander's operation then? No, indeed I seldom ever introduce a pessary, any more than I would put splints on their legs to cure the weakness in their limbs, which nearly always accompanies the prolapsus in such cases. On the contrary I order then to remain in bed a few days with their hips higher than their heads, and I give them the strongest preparation of iron quinine and strychnine that their stomach will bear, good air, good food, and cold frictions to the abdomen.

Besides it must be remembered that the uterus is not held up by the round ligament alone, even if it is held up by it at all, which many anatomists deny. In fact, to treat displacements of the uterus scientifically, we should have a very clear idea of the manner in which it is held in place. Pardon me if I remind you that the supports of the uterus are very varied. First of all there is the vagina which in a muscular well-developed woman is a strong tube or column alone capable of holding up a healthy uterus. But in the miserable weak woman of modern education it is very much weaker.

Again the vagina itself is supported by the perineum, and if there is rupture of the perineum, there will be prolapsus of the vagina, and, consequently, displacement of the uterus. Perhaps the two most important supports are the anterior or utero vesical and the posterior or utero sacral ligaments. The former contains bundles of fibrous tissue only, but no muscle, and hold the uterus fixed by its neck, to the bladder The posterior or utero sacral ligaments extend from the lower part of the body of the uterus, to the other side of the saecrum, enveloped by peritoneum, and are composed of non striated muscular fibres which spring from the uterus. The experiments of Malgaigne would seem to prove that these ligaments constitute the principal obstacle to the falling of the womb towards the vulva. When traction is made on the cervix these ligaments are immediately seen to be tightened, and when they are divided the uterus sensibly drops, but it is soon arrested by the broad ligaments and the resistance of the floor of the pelvis.

The broad ligaments are muscles covered with peritoneum, and do not support the weight of the organ but merely oppose flexions of the body on the neck, and resist lateral deviations. In fact, as Barnes Senr says, "The so-called ligaments of the uterus exert but a small influence in preventing prolapsus," and he has frequently seen the uterus in the vagina brought down to the vulva by expulsive efforts at defecation.

As I have above stated, the greatest admirers of the operation admit that it is not at all suitable for displacements with adhesion; and as these are precisely the most troublesome cases to cure by any other means, they are just the ones we are most in need of an operation to come to our aid. But in these we turn in vain to Alexander's operation. The round ligaments would either break before the displacement would be corrected, or else we would have a severe attack of peritonitis or perimetritis.

The only case after Alexanders' operation that I have seen, was not a successful one; as in addition to all the troubles of which she complained before going to hospital, she had a month after

region was occupied by a firm projection, rightly wards an immense inguinal herina for which she will have to forever wear a truss ; notwithstanding that she was operated upon by one of the best gynecologists in Canada. Besides the operation is not without danger, in fact several deaths have occurred from peritonitis and there may be others from hæmorrhage. So that unless the advantages to be derived are very certain and decided we would hardly be justified in exposing our patients to any risk.

While I do not doubt that Alexanders' operations as above described have been sometimes followed by good results, I am inclined to think that a great deal of the good results may fairly be claimed to be due to the before and after treatment ; for when you have reduced the subinvolution by several weeks treatment, and kept the patient in bed three or four weeks longer after the operation, with a pessary in her, you will have in most cases removed the very necessity of the operation, the uterus no longer being too heavy for its support. But even admitting that it has sometimes or even often been followed by good results, I do not think the cure will be permanent, for the reason that the round muscles are not inextensible fibrous ligaments that will not stretch. If that were the case what would happen in case of pregnancy? The uterus would be unable to rise and abortion would surely follow. Since the shortened round ligaments are capable of supporting the weight of a heavy uterus, and of mechanically prevent it from falling, surely they would be equally able to prevent it from rising from the pelvis under the expansive force with which the impregnated uterus is endowed. But the advocates of Alexanders' operation assure us that we need have no fear of the result of conception, and that the shortened round ligament will offer no obstacle to the upward movement of the organ. And I agree with them. For, as I do not admit the ability of the round ligaments alone to prevent the falling of the organ, a distance of three or four inches, I cannot with any more reason say that it will keep it from rising.

I therefore maintain that Alexanders' operation does not permanently cure retro-displacements and falling of the womb, and that even if it does appear to succeed, there are other safer and more rational means of attaining the same result, and I venture to predict that the operation will not last.

Society Proceedings.

MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

Annual Meeting, October 8th, 1886.

J. C. Cameron, M. D., 1st Vice-President, in the Chair.

The annual meeting of the Society was held on Friday, the 8th of October. Drs. J. H. Y. Grant, R. H. Wilson and A. F. Schmidt were proposed for membership.

The treasurer of last year, Dr. Perrigo, and the secretary, Dr. Gurd, handed in their resignations.

The election of officers for the ensuing year resulted as follows :

President—Dr. J. C. Cameron.
1st Vice-President—Dr. Geo. Wilkins.
2nd Vice-President—Dr. Alloway.
Secretary—Dr. R. F. Ruttan.
Treasurer—Dr. A. Lapthorn Smith.
Librarian—Dr. Reed (re-elected).
Council—Drs. Geo. Ross, Rodger and Kennedy (re-elected).
Publication Committee—Drs. Kennedy, Geo. Ross and Bell.

Abdominal Sarcoma.—Dr. Geo. Ross, showed organs from a case of abdominal sarcoma. The patient was an active, muscular man, 28 years of age, and came under observation three weeks previously. Six months ago he began to experience lumbar pain, which was called lumbago, and suggestions made of some affection of the kidneys ; suffered much, and at times pain was also felt in the abdomen, not unfrequently accompanied by vomiting ; general health had failed, and he looked somewhat thin and anæmic, although he had kept at his business until the time of his fatal seizure. Having suffered considerably for some days, he was suddenly taken one morning with most agonizing pain in the epigastrium. When seen, he was collapsed-looking, with rapid pulse and cold perspiration. A large quantity of morphia was required before any relief was obtained. The case now looked something like a perforative peritonitis, but the course of events soon negatived this. From this time until death, twenty days later, it was absolutely necessary to give frequent hypodermic injections to control the excessive pain. There was great tenderness in the epigastrium, which

believed to be part of the liver. Soon sharp stabbing and very distressing pains were complained of in the lower part of the chest—first on one side, then on the other. There was no physical evidence of pleurisy, but fine and coarse râles were heard over the back and lateral regions of both lungs.

A short cough set in, and, during several days, small quantities of very bright blood were frequently brought up. The diagnosis was, tumor in the back of the abdomen, locality uncertain, but pressing upon the lumbar nerves—the recent and fatal attack being looked upon as due to an acute intra-peritoneal abscess. The specimens were: a mass of sarcoma as large as two fists, which lay against the vertebral column, and had evidently originated in the retro-peritoneal glands. Several nodules of secondary deposit in the liver; the left lobe occupied by an immense clot of blood, entirely disorganizing the part and distending the capsule of the organ (softening of one of the nodules and a profuse hemorrhage into the substance of the liver, distending its capsule had caused the sudden attack described). The lungs contained numerous nodules of similar growth, varying in size from a large pea to a walnut; the largest of them projected considerably from the surface, and corresponded to the seat of the stabbing pains. Dr. Ross remarked upon the importance of abiding pain in any part of the dorsal or lumbar region, with deterioration of the general health, as indicating the presence of such growths in the deep-seated glands. Such hepatic hemorrhage must be a very rare occurrence, and could not have been diagnosed during life.

Stated Meeting, October 22nd, 1886.

J. C. CAMERON, M.D., PRESIDENT, IN THE CHAIR.

Synovitis of the Knee-joint in Congenital Syphilis.

Dr. LAPTHORN SMITH exhibited a boy 12 years old, and read the following notes:—He was brought to me by his mother, complaining of a swelling of the right knee, which he had had for nine months or a year. He also had some ill-looking suppurating sores on his throat and chin, due to glands which had formed abscesses and broken, thus destroying a considerable surface of skin. The knee was very much swollen, only slightly red, not very painful, and not at all hot to the touch. As the swelling was pointing, I opened it, and a half ounce of thick yellow pus escaped. The peculiar appearance presented by the boy's nose and teeth enabled me at once to diagnose congenital syphilis. His nose is flattened, and his teeth present the peculiar chisel shape which Mr. Hutchinson says is pathognomonic of congenital syphilis. Moreover, the disease of the knee-joint was much less painful than non-syphilitic knee-joint disease generally is. The mother did not know anything about syphilis, but I elicited the following important information: That her first child was born dead; her second was born dead; the third was this one, born at full time, but affected with "snuffles," mucous patches at the anus, and a copper-color rash over the body, for all of which he was treated; the fourth child was born at full time, only had a slight eruption, and is now alive and well. The fifth, sixth and seventh pregnancies were premature. This boy never had interstial keratitis, nor any other symptoms than those mentioned. She also informed me that her husband was over 40 when he married—a suspicious circumstance, I thought, so I asked her to send him to me. On seeing him, I astonished him very much by telling him that he had had syphilis in his younger days, which he at once admitted. I placed the boy on cod-liver oil, and gray powder alternated with syrup of iodide of iron, generally; and Scott's dressing locally, alternated with tincture of iodine, under which he rapidly improved. I removed him from school, but I did not deem it advisable to confine him to bed, nor even altogether to the house, all of which I would have done if I had considered it a case of ordinary disease of the knee-joint, because I considered it of importance to keep up his general health. The affected knee is now only a quarter of an inch larger around than the other one, which is now perfectly healthy, although it was somewhat full when he first came. Mr. Clutton of St. Thomas Hospital has collected 13 of these cases, which he calls symmetrical disease of the knee-joint due to hereditary syphilis. What is most interesting about these cases is the prognosis, which is very favorable, contrary to that in ordinary cases; and what is remarkable is that there is little or no pain. This boy could hardly be prevented from running as fast as the other boys in the street, although his knee-joint was so full of liquid that the patella distinctly floated. All of Mr. Clutton's cases were in children between 8 and 12 years of age.

DR. BELL considered the case a marked one of

hereditary syphilis, and advised putting the affected joint at rest.

Laryngeal Phthisis.—Dr. Major introduced to the notice of the Society the treatment of Laryngeal Phthisis by the injection of lactic acid into the substance of the larynx.

He briefly referred to the success that had, last winter, attended the use of that acid as a pigment in private and hospital practice. The discovery of lactic acid as a means of local cure was due to Kausa of Berlin, at whose Klinik during the past summer he had ample opportunity of observing the excellent results attending this remedy, when inserted beneath the mucous membrane of the larynx. Dr. Major employed for the purpose Dr. Theodore Herring's (Warsaw) syringe as modified by Kausa. Lactic acid when used by the latter method was particularly prompt in its action, deposits of tuberculous matter underwent rapid absorption, and the local lesion quickly disappeared. It was especially effectual in the early stage of swelling and œdema, cutting the disease short before ulcerative changes had begun. Eight or ten operations, extending over a period of 20 days, would, in the majority of cases, prove sufficient to completely restore a tuberculous larynx.

Dr. Major used a 20 per cent. solution, and injected from 10 to 20 minims at each sitting. The use of lactic acid was not particularly irritating, and did not interfere with the carrying out of other means of a sedative nature. A case under treatment was demonstrated to the members present, in which one side only had at first been acted upon, and the marked difference in the degree of swelling, etc., was very manifest. Other cases undergoing treatment by injection were doing equally well, and would be shown at an early day.

He considered that this plan had already been established as more speedy and permanent than any of its predecessors.

Discussion.—Dr. R. J. B. Howard congratulated Dr. Major on the marked effect of this mode of treatment in the case exhibited. In the earlier stages of laryngeal phthisis he usually applied a weak solution of silver nitrate, and later, iodoform and boracic acid. In all cases of ulceration he found this treatment very efficacious. A relapse of the disease was, in his experience, the general rule.

Dr. F. W. Campbell considered the tendency of modern methods of treating phthisis to be direct applications to the seat of the lesion, but did not believe in neglecting general treatment at the same time.

Dr. Geo. Ross called attention to the beneficial effect of the treatment in the case exhibited. The interesting point about the mode of treatment is the prospect it opens up of being able to destroy the tubercular focus in cases where pulmonary tuberculosis originates in the larynx. Patients have escaped general tuberculosis by excision of an affected joint. Even in pulmonary tuberculosis, where the laryngeal phthisis is secondary, the relief of the intense pain and distress would be a great boon.

Tumor of the Optic Nerve.—Dr. Buller exhibited the tumor and gave the following particulars of the case:—This growth was removed on the 16th of April from the orbit of a little girl 7 years of age. The history of the case and the objective signs were sufficiently distinctive to warrant a diagnosis of tumor of the optic nerve before the operation for its removal was undertaken. The child was well developed and in excellent health. About six months previously an undue prominence of the right eye was noticed, and this had slowly increased. Two months previously the vision was tested by a physician and the eye found to be entirely blind, just as it was when I first saw it on the 15th of April. The amount and character of the proptosis can be pretty well estimated by a glance at this photograph taken the same day. The protrusion was considerable, and almost directly forwards; the movements of the eyeball were slightly impaired, but not more so in one direction than another. No signs of any deep-seated inflammatory process existed, nor was there pulsation or bruit, or change in degree of proptosis from placing the head in such a position as would favor congestion of the parts. The ophthalmoscope showed a greatly swollen optic nerve—unilateral choked disc. This, with the complete and early blindness, were strong points in the diagnosis. I hoped to be able to remove the growth and return the eyeball in position. After dividing the attachment of the outward rectus, and passing the finger between this muscle and the eyeball, it was easy to feel the enormously swollen nerve and trace it to the optic foramen, where it was removed with curved scissors and afterwards separated from the eyeball. There was only moderate bleeding, and, as far as the manipulative procedure was concerned, it would have been easy to return the eyeball; but,

on finding that the pulpy growth over the sheath of the nerve extended right up to the optic foramen, I thought the chances of preventing a recurrence of the tumor would be improved by a free application of chloride of zinc paste to the apex of orbit, and under these circumstances deemed it useless to attempt to save the eyeball. Accordingly the eye was removed and the zinc paste applied. The child made a good recovery, and returned home in two weeks after the operation. The growth, you will see, is all contained within the sheath of the optic nerve, and forms an ovoid mass about 25 mm. in length and 15 mm. in diameter; it was tolerably firm, and had a pulpy, semi-transparent appearence when removed. I suspect it is a myxo-sarcoma, but Dr. Johnston has kindly made an examination of its histological structure under the microscope, and will perhaps kindly favor us with the result of his investigation.

Dr. Wyatt Johnston reported the result of the microscopic examination. No trace of nerve tissue was found. The growth was fibrous, and was characterized by a fine meshwork resembling a glioma.

In reply to Dr. Bell, Dr. Buller stated that there was no recurrence of the growth.

Progress of Science.

TREATMENT FOR THE VOMITING OF PREGNANCY.

By Geo. J. Engelmann, M.D., St. Louis, Mo.

The question, "How do you treat vomiting of pregnancy?" is one often asked, and one which almost as often receives a varying answer. The question is full of interest and importance, and although frequently occurring to the practitioner, it has not rceived proper attention. For various reasons the trouble is an annoying one, and it is as frequent as it is annoying. The remedies recommended or the treaments advocated differ widely, yet, odd as it may seem, there is good reason for this. Physicians who have obtained good results with some remedy or method of treatment naturally favor that and thoughtlessly recommend it for vomiting of pregnancy in general. It is tried, and and it fails. Others succeed with methods differing widely, hence we come to no understanding, nor do we arrive at any satisfactory conclusion as to the method of treament. To do this we must con sider the *nature* and *cause* of *the disorder.*

The vomiting of pregnancy is *not a disease*, but *a symptom*, and a symptom varying greatly in character as determined by the underlying cause. From the moment that we cease to look upon this disturbance as *a disease* to which a certain line of treatment is applicable, and view it *merely as a symptom* arising *sometimes from one disorder* and *sometimes from another*, the plan of treatment to be adopted will be reached more readily and with greater certainty.

We must distinguish between the vomiting of early pregnancy and the vomiting in the later months of pregnancy; the vomiting of the early months of pregnancy is always a neurosis, due, either to the distention of the uterus, or to reflex nervous influences dependent upon the recently established gestation—that is upon physiological causes and physiological conditons, or in other cases upon pathological conditons, such as narrowing of the cervical canal; erosion of the cervix by friction upon some part of displayed organ. In the later months of pregnancy the vomiting is not always a neurosis, a gastric hystero-neurosis; but may be due to a local irritation, to pressure upon the stomach by the enlarged uterus or to some disturbance in the gastro-intestinal canal or its nerves, brought about by the very much enlarged uterus.

TREATMENT OF VOMITING IN THE EARLY MONTHS.

In those cases in which the vomiting is merely a reflex neurosis due to physiological changes in the uterus, we must attempt to quiet the irritated gastric nerves and give tone to the system. I then advise the use of some of the mild remedies so frequently recommeded; there are many effective and well known, but I will merely mention those which I use and upon which I have learned to rely, never having cause to seek for others. I generally give a powder composed of lactopeptine 60 gr., bicarbonate of soda, 60 gr., sugar with oil of peppermint, 60 gr., a little rhubarb 10 to 20 gr., with gentian or ginger 5 to 10 gr., giving a knife-point full before and after meals. When the stomach feels faint I give a teaspoonful of a mixture of bitter almond water 1 oz., with orange flower water 1 oz., and a little hyosciamus 2 to 6 gr. In case this treatment is not followed by speedy improvement I give a teaspoonful of a one per cent. solution of carbolic acid in water, but never fail to quiet the stomach with ten drops of a four per cent. solution of cocaine (cocaine hydrochloral 2½ gr.: aq. dist. 60 drops).

In many instances, however, we will find some slight local disturbance, some displacement of the uterus, and eroded cervix, an endocervicitis, and in these cases the local condition must be looked to. In rare cases only have I used the strong remedies. I generally succeed with mild applications a ten per cent. solution of carbolic acid to an inflamed cervical canal, or with the dry treatment of an erosion, dusting the surface with bismuth or iodoform and retaining the uterus in place and dressing the part with a tampon of tannated or borated cotton. I have never been obliged to resorto dilatation of the canal, which was quite the fashion at one time. It was spoken of a great deal highly reeommended, but now seems to have been forgotten, and justly, because it is dangerous and rarely necessary. Where we succeed with dilata-

tion of the canal we will succeed as well, if not better, by a mild astringent application, the narrowing of the canal being often due to a swelling of the tissues, whether physiological or pathological and by reducing this we widen the canal more safely than we do by distention. Possibly there are some cases in which it is called for, but milder means and safer ones, will generally answer—I may say always, if the disorder is not allowed to progress and treatment is at once inaugurated. Applications of a four per cent. solution of cocaine, or pure salt to the canal and to the eroded cervix, I have found useful as a means of affording immediate relief. It is desirable to stop the vomiting for the time being and immediately. As a rule I have followed the use of cocaine by the application of a mild astringent or the ten per cent. carbolic acid solution. Cocaine quiets the nervous irritability and prevents an injurious action of the drug itself, whilst the astringent affords permanent relief. But whatever treatment is adopted, the physician must not fail to see that the bowels are well regulated and that proper diet is observed. In mild cases when medication is not desired or feasible, I am very fond of following an old German custom. I advise the patient to take a small cup of strong coffee upon awakening in the morning—best without sugar or cream—then to remain quietly in bed for an hour before getting up.

TREATMENT OF VOMITING IN THE LAST MONTHS OF PREGNANCY.

In the last months of pregnancy the nausea and vomiting are not so persistent as in the early months and less often due to pathological conditions of the uterus. It is caused by pressure of the enlarged organ either upon the stomach or some of the sympathetic centers or as in the early months, it is a hystero-neurosis—is due to the physiological condition of the uterus or to pathological changes will afford relief. I have invariably succeeded with the use of mild astringent applications about the cervix. When the latter is the case, local treatment is called for as in the earlier months; I would emphasize this, as the local treatment in the vomiting of the last months of pregnancy is altogether too much neglected. I have succeeded in checking most persistent, almost fatal, vomiting in the last months of pregnancy, after all possible methods of treatment had been tried by homœpath and allopath, by local applications to the cervix.

Vomiting at this time, if from local causes, is generally to due to tension upon the nerves by the swelling of the cervical tissue; astringent and anodyne applications will afford relief. I have invariably succeeded with the use of mild astringent applications, and the continuous use of such remedies applied by means of the tampon, either in powder or in solution with glycerine.

Tannin, carbolic acid and iron may be used alone or in a variety of combinations applied with the glycerine tampon. The mild application of a galvanic current to the cervix sometimes affords speedy relief if other means fail. A strong current, however, must not be used; and in case of great gastric irritation the positive pole of the galvanic current upon the stomach, the negative pole upon the spinal cord, will allay this aggravating gastric irritation. A faradic current may also be tried.

I have never been obliged to resort to electricity, by reason of the failure of other methods, but have tested it succesfully in cases which I did not resort to my usual treatment.

The question may be asked, how are we to tell what treatment to use; how are we to know the nausea and vomiting? I make it a rule to examine the patient and inquire into her general condition, and if a local examination reveals any marked pathological change this should be at once remedied. If nausea and vomiting do not then cease, internal medication may be resorted to, but as a rule it will be found that upon proper treatment of the local disturbance nausea will cease. On the other hand, if there be no such disturbance, we at once resort to internal medication; and if this is not successful and speedily so, we must act upon the supposition that the vomiting is due to the physiological condition, and then we may resort to the use of cocaine, either internally or applied to the cervix and cervical canal, or we apply anodyne and astringents to cervix by tampons and if necessary to the cervical canal itself.

I have never seen a case that did not yield to treatment, local or general, if not applied at too late a stage when the patient was almost in collapse.

And yet you will say that fatal cases not unfrequent ly occur. This is true, but it is not because we have no certain means of overcoming the disorder, it is because relief is sought too late. For such fatal results medical teachers and medical text-books are to the great extent accountable. There is a wide-spread belief among the laity, deeply rooted among mid-wives and knowing old women, that the vomiting of pregnancy is a natural condition and should not be interfered with; and I am ashamed to say that text-books cultivate this belief, teach it to the physician; and among the older members of the profession, graduates of early days, it is almost a universal rule not to disturb the vomiting of pregnancy, unless it becomes persistent and severe. Excellent physicians pay no attention to the complaints of pregnant women when suffering from nausea and vomiting, and even the most modern of text-books say that we should not or need not interfere with nausea and vomiting, unless it becomes so severe as to endanger life. Even Lusk, that excellent authority, tells us so and quotes from an equally prominent German author, the recipe of an obstetric authority who when the young wife told him of her trouble, laughingly advised her to "go upon a visit to her mother," meaning, in other words, that treatment is needless or powerless and the best you can do is to have a good time and a change. These are not teachings as we should expect them in the present era

of medical progress. The student should be taught that this is a morbid symptom due to some pathological condition as it is most undoubtedly; which should be overcome at once! the sooner the attempt is made the more likely it is to prove successful. Why must the patient first be weakened by lack of food and long suffering, and even in danger of life before we interfere? If it is right to interfere then, it is right to interfere when the trouble is first inaugurated, and it is then most easily overcome. Mild remedies, careful diet and proper regime will easily check the nausea and vomiting when it first appears, and naturally so, as the patient is in a much better condition to respond to treatment than when weakened by months of suffering. Should, perchance, all treatment fail the uterus must be at once emptied, and we should, under no circumstances fail to bring about a miscarriage. If not delayed too, long relief is instantaneous. But unfortunately this operation is looked npon as a desperate *dernier resort* put off from day to day, until the sufferer has lost her vitality and succumbs, when at last it is determined upon. If performed in time the operation is accompanied by very little risk and is sure to afford relief.

If I have succeeded in impressing upon your readers that it is the duty of the physician to treat this disorder, and to treat it when it first appears; ifI have succeeded in showing the failure of the old teaching, and the old women's belief that we must not interfere, unless it becomes dangerous, then I have rendered you a far greater service than by recording any one method of treatment.

NASAL CATARRH.

By G. Q. Orvis, M.D.
SEYMOUR, INDIANA.

[Read to the Mitchell District Medical Society, at Seymour, June 4, 1886.]

I present to you to-day a short paper on Nasal Catarrh, or a more appropriate term Rhinitis.

This term applies to the abnormal condition we so often find affecting the membrane which lines the nasal cavities, and may be in the acute, subacute, or chronic stage. As to form we may find either the simple, the hypertrophied, or atrophic.

The latter being known as œzena, and should be treated as a separate disease. Rhinitis in the acute stage is generally known as coryza, and mucous membranes continous with the Schneiderian, lining other cavities, is generally affected at the same time. The condition we know as a bad cold, hay-fever, and the coryza present during exanthematous fevers are forms of acute rhinitis.

It is from the frequent recurrence of this acute trouble that the subacute and chronic forms appear; it is this condition that is most often seen by the physician, and it is the disease in this stage with which this paper will deal.

To correctly understand rhinitis we must look at the anatomical structure with which we come in contact, and we find a membrane lining the nasal cavities extending to other cavities, composed of a basement membrane of areolar tissue that contains numerous mucous secreting glands, covered externally by epithelium of the cilitated variety, through which the ducts of the mucous glands open and pour forth their excretions. This membrane is abundantly supplied with blood vessels, both arterial and venous, and its nerve supply is very liberal, coming from the four systems of nerves, viz.: the special sense, the sympathetic, the motor, and the common sensor. That part of the membrane above the middle turbinated bones is known as the olfactory membrane, and receives the olfactory nerve filaments; therefore is the membrane of smell.

The cilia on this membrane are longer, and the venous supply is less; therefore, we have a darker colored surface here than in other parts of the nasal cavity. The membrane below the middle turbinated bones is known as the pituitary membrane. Nothing in particular is necessary to say about this, except the support which it gives to the blood vessels is very poor; congestion takes place easy and soon becomes passive. These membranes or membrane, as we choose to consider it, covers the bony and cartilaginous walls of the nasal cavities; also covers the turbinated bones found in the cavities. The structure of these bones is peculiar, they being almost semi-cartilaginous of many surfaces and very liberally supplied with vessels; they are thinly covered with tissue, and when their covering is irritated becomes greatly enlarged by the engorgement of blood, especially when the irritation is lasting or often repeated. This imperfect anatomical sketch will be sufficient for our use in this paper, and we will look at the physiology for a moment.

The most important function is for the preparation of the air, which passes over its surface during respiration. The inspired air is warmed, and probably a certain amount of moisture added to it in passing over the Schneiderian membrane. This fact is proven in two ways: first, if we have complete stenosis of nasal cavities, and the person so affected becomes a mouth-breather, we are sure to have acute inflammation of the lower part of the respiratory tract; indeed, so true is this, that I am quite sure it could be proven that all persons suffering from asthma are mouth-breathers. Two cases which I have treated for asthma quite recently, and which are well-known to all of the physicians in the city, are both suffering from nasal stenosis, and both inspire air through their mouth.

The cause of this inflammation is no doubt an improper condition of the inspired air when it reaches the bronchi and air cells, being too cold and dry, and not as nature had intended it to be.

Another proof is, that the great danger in tracheotomy is the congestion and extension downward of the inflammation, and consequent closure of the air cells produced by cold inspired air; in fact, so great is this danger that intubation of the larynx is now coming into use, and is more successfully used

than tracheotomy, and no other reason can be given for its superiority. The special function of smell we will not dwell upon, as it is generally known that its loss causes no great inconvenience, and, therefore, to the human race is not very important, although in the brute creation it is one of the most important of senses. Another function is the act of excretion, and just how far this affects the human system we are not prepared to say, but no doubt there is a great deal of morbid material taken out of the circulation in this way, and when it is checked a great many ailments may be caused, which are well understood when we work out the problem of re-absorption of worn out matter and reflex irritation.

We will now notice the pathological conditions we find in rhinitis, and then pass on to the treatments supplemented by the clinical history of a few cases that have been in our care. We always find in chronic rhinitis a discolored membrane, and if the disease has not passed from the hypertrophied condition, is considered the true state of this trouble, we have a thickened membrane with enlargement of a part or all of the turbinated bones and thickening of the vomer. The symptoms of this condition are lassitude, fever, and stenosis, or, as the patient describes it, a stuffy feeling in the head. Auxiliary symptoms are local pain caused by pressure upon some nerve filament, reflex headache, deafness, caused by stoppage of the nasal orifice of eustachian tube, pharyngitis from extension, and ocular conjunctivitis.

The treatment for catarrh is as varied as the number of patients you meet; no set treatment will answer your purpose. First of all to remove the cause and to illustrate this I will cite a case.

My first case of rhinitis was in the six-year-old son of a Mr. S. of this city. The left nostril was closed by the thickening over the external end of inferior turbinated bone and the swelling above this caused a bulging of the left alae of the nose that was very perceptible. A very fetid discharge was oozing from the nostril, and the boy was suffering from what appeared to be remittent fever.

In this case fortune favored me; for without scarcely knowing why I should do it, I introduced a blunt probe, and my maneuvers dislodged a good-sized piece of a chip, which was blown out of the nostril by an effort of the little patient to get away from the cruel probing he was undergoing. I then supplied the mother with a Pierce nasal douche, and gave her directions for using it, and requested her to bring the boy to me again in three days.

She did so and I found the nostril quite open, the swollen condition reduced very much, and another piece of a chip in sight, which I removed; and in a few weeks the nose was entirely well. I learned that this boy had been treated by two of our older physicians, for several months, and one of them had pronounced it cancerous. In a blundering way I had relieved the boy and made myself famous in the eyes of this family. From this one case I learned to always try and remove the cause if it can be found. If scarlatina, or any of the other exanthematous fevers be the cause, then treat them, and oftentimes when the the constitutional troubles they produce are gone our catarrhal trouble will cease.

Undoubtedly catarrh is more prevalent now than in years past, and is perhaps caused by inhaling poisonous gases and bad air. It is not always easy to remove the cause, and must be treated by remedies suitable for its cure. When we find ulceration and sloughing going on we may expect to find pressure from some source over the ulcerated surface, and generally this is made by hypertrophied tissue opposite the excoriated surface.

If the condition has been long present, as we will learn by subjective examination, and we feel positive that medical applications are of no avail, then the best means to employ is something which will remove the rebundant tissue. If this be soft the Jarvis snare is most convenient, and is used by first transfixing the lump, and then drawing the wire around it when the part comes away readily.

To illustrate, I will report the case of Mrs. S., a young German woman, who came to me three years ago suffering with bronchitis, as she thought, and so it was, but this was not the primary trouble; she had a very bad pharyngitis and rhinitis, the latter, in my opinion, being the cause of all the other conditions. I treated her by swabbing, and brushing, and internal medication, for nearly a year, until I left my practice and went away to brush up, with but slight success. Upon my return the patient returned and, having given this disease some attention while away, I made a more thorough examination, and found a badly hypertrophied condition of the posterior ends of the inferior turbinated bones; these lumps I cut away, by using a transfixing needle and a pair of long scissors, a rather rude way but still it was successful, and in a few months I was rewarded with a perfect cure; the pharynx returning to its normal condition under the use of astringents; the bronchitis has left and the lady now reports herself well.

The medication used was liq. hydrastia, mur. amon. in solution and tr. ferri. mur. applied in spray-form. Sometimes cases present themselves to you where there is simply congestion, but not enough to amount to hypertrophy; in this class of cases we must rely on applications, and one giving me the best result is argenti nitras in spray-form used every third day, followed by placing a little bit of an ointment made by mixing glycerine and boracic acid, evaporating to a semi-solid consistency by heat, and in a short time our efforts are crowned with success.

Another condition we often meet with is where there is an osseous enlargement that is pressing some opposing part and causing irritation; this must be removed, and the most efficient means for this removal is the multiple knife, which is made to revolve by the motion of the hand, or a foot-lathe, and cutting away the growth, and bringing the part drawn to a level. Another instrument used is the pointed scissors and forceps.

Not long since a young man presented himself

to me for treatment for catarrh. Upon examination I found a sharp node grown out from the vomers and the tissue opposite considerably excoriated.

In the act of respiration you could see the part, rub against each other, and it was easy to account for his catarrh.

After a few weeks of treatment to heal the excoriated surface, and to relieve the inflammation as much possible, I removed the node with the jointed scissors, and the case is progressing rapidly towards recovery. Another remedy often used is caustics, either solid or acids, to produce a slough, but if the osseous tissue is enlarged this will fail, and if only the soft tissue be involved surgical aid is much nicer and more pleasant for the patient.

There are other remedies, such as the galvano cautery and pastes to be applied, but these should only be used by the most expert manipulators, and I have tried to keep within the pale of the regular practitioner, only giving those remedies which can be used by any careful, observing physician.

I have only spoken of true nasal catarrh, not having touched œzena, which is catarrh in an atrophic form, thinking that this had better be left to itself, as it is a condition hardly ever cured—only relieved.

In closing I wish to speak of the application of remedies and the best mode of procedure.

First of all the membrane should be throughly cleansed of all mucous, and this is best done with a cotton swab and some alkaline solution, and then thoroughly sprayed to be sure that all folds are clean, then throw your medicated fluid in the form of spray forced by condensed air or hydraulic pressure, and use enough pressure to be sure that every fold and sinus receives some medication; there need be no fear of injuring the middle ear by this method, or in doing any other damage, and you leave no corner for the disease to hide in, and again light up the whole surface of the nasal cavity. —*Progress.*

THE DIETETICS OF PULMONARY PHTHISIS.

BY ALFRED L. LOOMIS, M.D., ETC.

The dietetics of pulmonary phthisis is often the most difficult as well as the most important element in its successful management.

In the limited space at my disposal I can give only general rules, and an outline of the practice which experience has led me to adopt.

Three things require consideration:

1st.—*The most suitable articles of food.*

2nd.—*The time and quantity of its administration.*

3rd.—*The use of artificial digestives.*

Since the object sought is the maintenance of the highest possible nutrition, and as this must often be done with feeble digestive and assimilative powers, the selection of food will not be determined solely by their relative value (chemically) as food products, but quite as much by the facility with which they are assimilated.

The best foods are those from which the system gains the most heat and force producing elements, with the least proportionate expenditure of digestive and assimilative force.

Milk is undoubtedly the best food of all *per se*, but in many cases with weak digestive power more nutrition is gained from its weaker ally Kumyss.

Of the albuminoids, meats, especially beef, and eggs are the most valuable.

The best hydrocarbons are cod liver oil, butter, cream, and the animal fats. Sugars and starches should be avoided as far as possible, since they tend to fermentation, and cause both gastric and intestinal dyspepsia. Only occasionally will a patient be found who is benefited by their use. They should be employed, therefore, only for variety in diet, and to avoid that disgust for all food so apt to be engendered by a monotonous diet.

Phosphorous, so important especially in tubercular cases, is secured in preparations of the phosphates, which should not be in the form of syrups. Vegetables and fruits may be required in the earlier stages to avoid monotony, and later to satisfy a capricious appetite, but they should be restricted to the minimum and to such as contain the least saccharine elements.

Two very distinct classes of phthisical patients must be recognized, those under thirty and those over forty. It may be stated as a general rule that for the first class the basis of all dietetic treatment must be the hydrocarbons and phosphates. They are often *the curative* agents in young subjects.

On the other hand the albuminoids must constitute the principal food of the second class. It is worthy of note that often in phthisis the demands of waste and repair not only enable young people, who usually object to all forms of fat, to take and assimilate, but even cause them to exhibit a decided fondness for all forms of fatty food. Older subjects, who in health use little albuminous food and more fat, are able to digest large amounts of meat, while fats cause intestinal dyspepsia.

In selecting special articles of diet for these two classes, it is important to remember that there are distinct stages which consumptive patients pass through, as regards digestive powers. The first covers the period during which digestion and appetite are unaffected. The second begins with the first indications of septic infection; is marked by intermittent pyrexia and gastric initability. It extends to the time at which the stomach refuses solid food. The third covers the remainder of the patient's life. It is in the first stage that the best results are obtained.

Systematic dieting should be begun, therefore, upon the first suspicion of a developing phthisis. The diet can no longer be indiscriminate, but the rules given below should be strictly adhered to. For young patients meat must be, and butter and cream are to be used freely. Milk should consti-

tute the principal drink, in quantities of from two to four quarts per day. Other articles are to be taken sparingly, simply to avoid monotony. Each meal is to be supplemented by a generous allowance of cod liver oil (℥ ss ℥ ii). The phosphates so valuable to this class of patients can be supplied in sufficient quantity only by special preparations. For patients over forty, meats should be lean rather than fat, and be taken in large amount. Two to three pounds of beef, three to four quarts of milk, and three or four eggs may be given to such patients in twenty-four hours.

In the second stages, changes are required in the methods of preparing the food rather than of the articles employed. All the food must be given in fine division and prepared in the most palatable manner. Beef may be scraped or chopped with a dull knife, only the fine which adheres to to the blade being used, and eaten raw, or lightly or quickly cooked, the essential points being the removal of all coarse fibre, and rendering it palatable to the patient. Milk may be taken raw, boiled, cooked in custard, curdled or shaken with cracked ice and a little salt. Eggs are best taken raw or soft boiled. Kumyss may in part take the place of milk, and the various peptonoids of beef, milk, etc., will relieve the enfeebled digestive organs as well as afford valuable nutrition. Cod liver oil will require emulsification, and fresh emulsions are to be preferred to the stock preparations. Practically I have found an emulsion of oil, pepsin and quinine available, when others caused indigestion and offensive eructations.

In the third stage when only prolongation of life can be expected, the forced diet of the earlier stages must be abandoned. When a hearty meal causes cough and vomiting with consequent exhaustion better results will be obtained with smaller quantities of food. In such cases the food must be reduced in quantity, given more frequently, and should consist largely of artificially digested preparations.

It is quite customary to delay the use of the digestive ferments until the later stages of the disease, but since it is in the first stage almost solely that we effect a cure, it seems the wiser course to concentrate all our forces upon the disease at this time.

When we wish to crowd the nutrition, twenty to thirty grains of pepsin, with fifteen to twenty minims of Acid Hcl. directly after eating, and ten to fifteen grains of pancreatine one hour after taking food, will enable a patient to digest an amount of food, which otherwise would produce an acute dyspepsia. When the digestion of starches is at fault or requires assistance, the diastase alone may be given with or after the meal. In the second and third stages artificial digestion becomes a necessity.

Some of the most important rules which govern the dietetics of phthisis may be formulated as follows:

1. Every phthisical patient should take food not less than six times in twenty-four hours. The three full meals may be at intervals of six hours, with light lunches between.

2. No more food should be taken at any one time than can be digested easily and fully in the time allowed.

3. Food should never be taken when the patient is suffering from bodily fatigue, mental worry, or nervous excitement. For this reason mid-day naps should be taken before, not after, eating. Twenty to thirty minutes' rest in the recumbent posture, even if sleep is not obtained, will often prove of more value as an adjuvant to digestion than pharmaceutical preparations.

4. So far as possible each meal should consist of such articles as require about the same time for digestion, or, better still, of a single article.

5. Within reasonable limits the articles of any one meal should be such as are digested in either the stomach or intestine alone, *i. e.*, the fats, starches and sugars should not be mixed with the albuminoids, and the meals should alternate in this respect.

6. In the earlier stages the amount of fluid taken with the meals should be small, and later the use of some solid food is to be continued as long as possible.

7. When the pressure of food in the stomach excites cough, or when paroxysms of coughing have induced vomiting, the ingestion of food must be delayed until the cough ceases, or an appropriate sedative may be employed. In those extreme eases where every attempt at eating excited nausea, vomiting and spasmodic cough, excellent results are attained by artificial feeding through the soft rubber stomach tube.

8. So long as the strength will permit assimilation, and excretion be stimulated by systematic exercise, and when this is no longer possible the nutritive processes may be materially assisted by passive exercise at regular intervals.

The following may serve as a sample menu for a day in the earlier stage. The meat soup is made by digesting finely chopped beef (1 lb) in water (Oj) and hydrocloric acid (5m), and straining through cheese cloth.

MENU.

On waking.—One-half pint equal parts hot milk and vichy, taken at intervals through half an hour.

8 a.m.—Oat meal with abundance of cream, little sugar; rare steak or loin chops with fat, cream potatoes; soft boiled eggs, cream toast; small cup of coffee, two glasses of milk.

9 a.m.—Half ounce cod liver oil, or one ounce peptonised cod liver oil, and milk.

10 a.m.—Half pint raw meat soup; thin slice stale bread.

11-12.—Sleep.

12.30 p.m.—Some white fish ; very little rice ; broiled or stewed chicken ; cauliflower ; stale bread and plenty of butter ; baked apples and cream ; milk, Kumyss or Matzoon, two glasses.

2 p.m.—Half ounce cod liver oil, or one ounce peptonised cod liver oil and milk.

4 p.m.—Bottle Kumyss or Matzoon ; raw scraped beef sandwich.

5.30-6 p.m.—Rest or sleep.

6 p.m.—Some thick meat or fish soup ; rare roast beef or mutton ; spinach ; slice stale bread ; custard pudding ; ice cream.

8 p.m.—Half ounce cod liver oil, or one ounce peptonised cod liver oil and milk.

9-10 p.m.—Pint iced milk ; cup meat soup.

1-2 a.m.—Glass milk, if awake.

CHRONIC PROSTATITIS.

(By W. H. Danforth, M.D., Boston, Mass., asst. at the Disp. Clin., for Genits Urinary diseases.)

Northwestern Lancet :—Chronic prostatitis is, in the majority of cases, the result of a gonorrhœa, where the inflammation has passed the compressor urethræ or the prostate itself.

Next in frequency as causes come masturbation and excesses in venery, as these habits keep up a continual congestion in the prostatic region ; but in this case the inflammation is chronic from the beginning, and usually the secretion is mucous and not purulent.

The disease may arise from stricture, unskilful instrumentation, irritating drugs, and, perhaps, from the passage of concretions and sand in the urine.

Probably the prostate itself is not always affected by the inflammation ; for it is often found normal in size and not tender to the touch ; this is most noticeably the case in the chronic cases arising from masturbation. For this reason it seems incorrect to apply the term "prostatitis" to every inflammation in the prostatic urethra. The inflammation probably always begins in the mucous membrane of the urethra, and may or may not extend into the follicles of the gland later.

If we adopt Ultzmann's view, we apply the term "catarrh of the neck of the bladder" to all inflammations of the posterior part of the urethra, whether involving the prostate or not.

When an acute attack of prostatitis comes on during a gonorrhœa, it is announced by very frequent and painful micturition, weight and throbbing in the perineum, pain on defecation, and, perhaps, an attack on retention. The symptoms of the chronic form, whether from an acute case or other cause, are as follows : (These will not all be seen in the same patient, usually.)

(1) Increased frequency of micturition, but much less than in the acute form. Ultzmann's says : "Frequent micturition in the disease of the posterior urethra is such a very characteristic symptom, that from the presence of this sign alone we can always conclude wlth certainty upon a lesion in the neck of the bladder." (2) "Bearing down" and uneasiness in the perineum and anus. (3) Slight pain or uneasiness at the end of micturition. (4) Tenderness around the prostate on passage of a sound. In long-standing cases the urethra becomes anæsthetic, and this symptom is lost. (5) Inability to urinate on making the attempt is a prominent symptom. (6) Diminution in the force of the stream and dribbling after micturition. (7) Reflex spasm of the compressor urethra ; this is of common occurrence. (8) Frequent erections and erotic desires, as well as frequent seminal emissions at night, are often complained of ; but in cases of long durations the opposite extreme is found, and partial or complete impotence may be present, causing the utmost depression. (9) There may be a discharge of mucus from the urethra, showing the presence of inflammation anterior to the compressor urethra ; when, however, the inflammation is confined to the prostatic urethra, the secretion appears only in the urine. This, of course, is due to the strength of the compressor, keeping back secretions posterior to it. (10) Mucus may be discharged from the urethra during straining at stool, simulating the discharge in spermatorrhœa ; the microscope settles this point. (11) When the urine is passed in two portions, characteristic appearances are seen. Ultzmann says, "If only a little secretion has collected in the posterior urethra the urine in the bladder remains uninfluenced, and if we have the patient urinate successfully in two glasses, only the first portion of the urine passed will appear turbid, the second half remaining clear and transparent. If, however, the secretion in the posterior urethra is considerable in amount, it will flow back into the bladder, make the urine more or less turbid and even irritate the bladder itself.

In this case, both specimens of urine (passed into two glasses) will appear turbid. However, as a distinction from a primary cystitis, the first half of the urine will appear more turbid than the second and will contain more compact flakes, which all come from the urethra, and which accordingly are absent from the second portion of urine passed." (12) These "flakes" are the so-called "prostatic shreds," and consist of short, thick, clumpy masses, which, under the microscope, are seen to be collections of pus, prostatic epithelium and mucus, with sometimes a few spermatozoa. They occupy the follicles of the prostate, and are washed out by the urine. (13) Shreds from the anterior urethra may also sometimes be seen in the first portion of the urine ; these are longer and thinner, and consist of pus and urethral epithelium. (14) The urine contains mucus, prostatic epithelium, pus, often spermatozoa, and sometimes blood corpuscles.

A trace of albumin is often seen, which disappears when a cure is effected. (15) On rectal examination, the prostate is usually found somewhat enlarged and tender ; it may be normal in size and not tender. In which case the inflammation is probably mostly in the mucous membrane of the urethra. (With enlargement of the gland there may be residual urine.) (16) Neuralgic pains in

the back and groin are frequent subjective symptoms. Dr. F. S. Watson says: "These pains vary as to constancy and duration, and may be entirely absent."

The frequency of micturition, with pain, and blood appearing at the end of the act, may simulate the symptoms of stone in the bladder. This happens only in the acute cases, and rectal examination and sounding make the diagnosis clear. True hypertrophy of the prostate occurs only after the fiftieth year, and can hardly be mistaken for an inflammation.

In cystitis the pain is felt above the symphysis pubis instead of in the perineum; the urine is generally alkaline and the second part of the urine is as turbid as the first. Cystitis is, however, often associated with a chronic catarrh of the neck of the bladder.

The treatment should be both general and local.

The patient should take no alcohol, he should sleep on a hard mattress in a cool room; he should take moderate exercise daily out of doors; his bowels should be kept open, and he should be given tonics and plenty of nourishing food. The urine must be kept dilute and unirritating by diuretics.

For this purpose benzoate of soda, twenty grains, given four times a day, is an excellent remedy.

Locally, counter-irritation to the perineum is beneficial. One side of the raphe is to be painted with cantharidal collodion or tincture of iodine, and in a few days the other side. This may be kept up for some time, and will usually relieve the sense of weight and uneasiness. (Care must be taken to prevent the irritant from touching the anus.)

Together with this the prostatic injection of nitrate of silver is probably the best remedy. It is best to begin with a solution of two grains to the ounce, and increase to five grains. In making the injection it is well to pass a good-sized sound first, in order to stretch the urethra so that the fluid may readily penetrate to all parts. (The sound should be lubricated with glycerine, as oil will form a coating over the urethra and modify the effect of the application.) Then a drachm of the warmed solution is to be injected slowly, the point of the syringe having been located at the prostatic urethra by the finger in the rectum.

Ultzmann's syringe catheter, fenestrated on the sides, connected by a rubber tube to a small syringe, is the most convenient instrument to use.

The application should be made twice a week, using no more than a five-grain solution, and the treatment kept up for six or eight weeks. If, in that time, no improvement is noticed, the injections should be discontinued for a time and other means employed.

Combined with the deep injections and counter-irritation, large sounds should be passed once or twice a week. In the large majority of *chronic* cases the above treatment will bring about good results. It is particularly applicable to the chronic "masturbation cases."

THE USEFUL ADMINISTRATION OF ARSENIC IN DISEASES OF THE SKIN.

By Edward L. Keyes, M. D.

The short article which appeared in the first number of the *New York Medical Monthly*, from the able pen of Dr. Fox, upon "the useless administration of arsenic in diseases of the skin," seems to me to call for a word of protest from some one who thinks better of this drug than Dr. Fox appears to do, and especially so since the editor of the *Journal of Cutaneous and Venereal Diseases*, in *Medical Record* of June 26, has made a general call for expression of opinion upon this important subject.

The words of Dr. Fox and his argument, as he puts it, can hardly be controverted, but the implications of his article, and the generalizations which are sure to be drawn from it, seem to me to be damaging in their tendency, and likely to be effective of more harm than good; and, therefore, since it is a very poor question which has not two sides, I wish to say a word on the other, and what seems to me to be the better side.

The general practitioner who has his routine prescription for all known symptoms, and who, upon seeing a malady of the skin, takes his pen and orders five-minim doses of Fowler's solution three times a day, in the vague conviction that by so doing he has performed his whole duty to his patient, is undoubtedly condemned by this simple act, and all that need be said of him or to him is that he ought not to treat skin diseases at all.

The value of diet, of hygienic measures, of topical applications; the study of diathesis, and the just appreciation of the cause of a given skin disease—all of these are doubtless more valuable factors of treatment than the administration of any drug, and a physician is hardly worthy of the name if he relies upon medicines alone in the management of any malady—cutaneous or general. In so far, therefore, it appears to me that the generalizations of Dr. Fox are accurate; but beyond this they appear faulty, because they seem by implication to attempt to weaken general confidence in a remedy which, carefully used, holds a very high if not the first place in cutaneous general therapeutics, notably in the management of chronic disease.

The same rebuke (*i. e.*, routine administration) may, with equal justice, be cast at cod-liver oil and the hypophosphites as to their applicability to phthisical maladies, at colchicum, at quinine, at mercury, at iodide of potassium, or at any other drug. One man may use any of these remedies without effect against a malady over which they are well known to exercise a more or less controlling influence, and he may fail; while another practitioner, continuing the same remedy and intelligently supplementing it by other means, may conduct his patient safely to a cure.

I am not in a position to champion arsenic or any other remedy as a general "skin disease," but

if there is any other drug more far-reaching in its influence for good upon the skin in a general way I have yet to learn it, and Dr. Fox has not suggested what it is.

My observation and experience in relation to the use of arsenic allow me to generalize only upon a few points.

Arsenic is distinctly a cutaneous stimulant; therefore, in the initial stage of a malady possessing an inflammatory element (notably eczema), it is not only not useful, but may be actually pernicious. Used after the acute stage has been controlled by appropriate means, it often speeds the parting guest and prevents it from lingering in a state of prolonged and desperate chronicity. A fitting anology is the use of friction and passage in joint disease. This remedy is very efficient, but it has its time and place. When the joint is acutely inflamed, message only adds fuel to the flame; but when the fire has been subdued, then the stiffness and loss of motion, perhaps otherwise inevitable, may be often overcome by the skilled application of massage. If the joint would get well without the massage, there is no call for its use, and no one but a routinist would employ it, yet that it has its use can hardly be denied, and so with arsenic.

Arsenic, in my opinion, is not useful unless the stomach tolerates it well and appropriates it in a kindly way. When digestion is interfered with by the use of arsenic, nausea or inappetence produced, it generally does no good often harm. In such instances, preparing the stomach beforehand, changing the diet, disgorging the liver, giving attention to the patient's personal habits will allow the remedy to exert an influence, where unaided it would be without value or even harmful. The same remarks ply exactly to the administration of cod-liver oil, and often to the use of iron and other tonics.

The different preparations of arsenic may be called into play here in selected cases. I have more than once taken a patient with chronic psoriasis, who had hopelessly given up the digestion, and seemed to irritate his skin, and conducted him to a cure by combing arsenious acid with nux vomica and pepsin, with some changes in diet, or by substituting the arsenite of soda for the arsenite of potash. The Bourboule water, a mild solution of the arsenite of soda, is a very gentle way of administering arsenic; too gentle as a rule, but yet I believe often effective of good, particularly in the case of weak digestion. Fowler's solution, especially if it has been long prepared, is very likely to disagree with digestion, and for this reason I seldom use it.

The more diffused, generalized and chronic that a given cutaneous malady is, the greater do I consider the indication for the use of a suitable preparation of arsenic, if the stomach will take it kindly. The more localized an affection is, be it ever so chronic, the less indication is there for arsenic in a general way, in my opinion.

Generalized chroma eczema, generalized psoriasis, and pemphigus may, perhaps, be selected as the maladies in which arsenic may be expected to exert what may be termed a certain specific general effect in controlling the symptoms—exceptions to the contrary notwithstanding. Yet the combination of mild doses of arsenic with other remedies is not without value in some localized maladies, and in combating some forms of acne and some cutaneous manifestations of syphilis. Much also might be said, but more cautiously, in the case of neurotic maladies as affecting the skin, and where an element of nervous debility keeps down the patient's general vitality, and prevents other suitable remedies from being effective.

In short, I think that there is so much value in the intelligent use of arsenic that it seems a sin to allow its association with that time-honored humbug, permiscuous blood letting, as an appropriate anology to pass unchallenged.—*Journal of Cutaneous and Venereal Diseases.*

ON THE VALUE OF BORIC ACID IN VARIOUS CONDITIONS OF THE MOUTH.

BY A. D. MACGREGOR, M.B., KIRKALDY.

Boric acid is now officinal, and justly so. It has long been used in various metallurgical and ceramic operations, and more recently its preservative power has been abundantly demonstrated. It is this antiseptic power which gives it its great therapeutic value. It is a very stable compound —one of the most stable of the acids; it is not volatile, and only exerts its action when in solution; fortunately, however, it is soluble in more than one menstruum. Up till now its chief application has been in connection with modern surgery, where the boric ointment, lint, and lotions all hold a prominent place. There are spheres of usefulness for it, too, in medicine; and one of these is in diseases of the mouth. It is the benefit of its local action we usually wish to gain, for, though somtimes given internally—as in irritable conditions of the bladder—its topical antiseptic effect is more often desired. In connection with its local application in various diseased conditions of the mouth, its solubility in water and glycerine, its unirritating character, its comparatively innocuous nature, and its almost tastelessness, are greatly in its favor. More particularly is this the case in treating such conditions in children, whose oral cavities cause them so much annoyance. Speaking generally, boric acid will be found useful in all conditions of the mouth, fauces, pharynx and nose, where there is any abrasion of the epithelium; whether it be used as a powder, gargle, mouth-wash, pigment or confection. More definitely, I may say, it is not contra-indicated in any of the forms of *stomatitis*, though scarcely severe enough for the graver varieties.

In *simple catarrhal stomatitis*, a mouth-wash, containing from 10 to 15 grains to the fluid ounce, speedily cures the condition, and exercises the same beneficial influence in the *ulcerative* form,

though there, in addition to the rinsing of the mouth, a local application in the form of the powder or pigment should be made to the individual follicular ulcers. The powder simply consists of finely powdered boric acid, mixed in various proportions with starch; the pigment is a solution of boric acid in glycerine (1 in 4 or 5). In both cases the addition of chlorate of potassium is advantageous; indeed, I usually combine it, but it is not essential.

Nothing I know of is at once so rapid and so efficient, in the treatment of *parasitic stomatitis* or *thrush*, as this remedy. The youngest children do not object to its application, and occasionally you have to caution against its too frequent use. The *oïdium albicans* quickly succumbs to its influence, I am well aware of the great value of nitrate of silver in many of these conditions; but, I am also alive to its extremely disagreeable and persistent taste, and the dislike which precocious children at once take to it. For thrush in children, I especially recommend boric acid, either as a mouth-pigment or as a confection. Honey and sugar have both been condemned as being inadmissible, in combination, for the treatment of thrush; but so far as children are concerned, I must say I consider a confection (though made with honey), which has been impregnated with boric acid, gains more by its palatableness than it loses by the tendency of the saccharine matter to further the growth of the fungus. The boric acid at once does away with this tendency. Let the pigment be frequently painted with a brush over the patches, never omitting to do it after food has been taken; or, a little of the confection simply allowed to dissolve in the mouth; and the days of the fungus will soon be ended. I have found boric acid combined with its salt (borax) markedly beneficial. Borax alone, however, is not nearly so good.

In *pharyngitis* and *relaxed conditions of the throat* a gargle, containing boric acid and glycerine with either tannic acid or alum in addition, ought not to be forgotten.

Let me allude to another condition, in which I have found combinations of this substance helpful and grateful to the patient. I refer to the condition in which we frequently find the mouth, tongue and teeth in severe cases of typhoid fever. The mouth is hot; the lips dry, cracked, and glued to the sordes-covered teeth by inspissated mucus and saliva; the tongue dry, or even glazed and hard, brown or black, crusted with a fœtid fur. Under such circumstances, a pigment containing boric acid (30 grains), chlorate of potassium (20 grains), lemon juice (5 fluid drachms), and glycerine (3 fluid drachms), yields very comforting results. When the teeth are well rubbed with this, the sordes quickly and easily become detached, little harm will follow from the acid present. The boric acid attacks the masses of bacilli and bacteria; the chlorate of potassium cools and soothes the mucous membrane; the glycerine and lemon juice moisten the parts, and aid the salivary secretion. I consider the application well worth a trial.

So much for the soft parts; a word in conclusion regarding the teeth. Few medical men, I suppose have ever given a prescription for a tooth-powder (such a matter is beneath their notice); and the selection of the ingredients for the various powders and pastes in vogue for the purpose of beautifying and cleansing the teeth is left entirely in the hands of those who certainly should not know better than medical men. I have frequently trespassed on this debatable ground, and recommend a particular dentifrice. In view of the extremely important part the teeth play in the economy of life, I never hesitate occasionally to inquire as to the attention they receive.

A tooth-powder should possess certain characteristics; it should be antiseptic, cooling, agreeable to taste and smell, and have no injurious action on the teeth. After use, it should leave the teeth white, and a sensation of freshness and cleanliness in the mouth. As an antiseptic in this connection nothing can displace boric acid. For years I have used the following powder, and can recommend it: Boric acid, finely powdered, 40 grs.; chlorate of potassium, 3 ss; powdered guaiacum, 20 grs.; prepared chalk, 3 i, powdered carbonate of magnesia, 3 i; attar of roses, half a drop. The boric acid in solution gets between the teeth and the edges of the gums, and there it discharges its antiseptic functions; the chlorate and guaiacum contribute their quota to the benefit of the gums and mucous membrane generally; the chalk is the insoluble powder to detach the particles of tartar which may be present, and the magnesia the more soluble soft powder which can not harm the softest enamel.

It is only right to say that boroglyceride (Barff) can replace boric acid in almost all the forms of administration I have enumerated; it is efficacious slightly, and pleasant to the taste.—*British Medical Journal.*

SOME APHORISMS IN OPHTHALMOLOGY.

By M. F. Coomes, M.D.

1. As a local anesthetic to mucous surfaces and open wounds, the muriate of cocaine is one of the most certain and effective agents that is known.

2. All surgical operations on the eye, except enucleation of the globe, may be performed under the influence of cocaine with as much or more safety than under any other anesthetics.

3. In all forms of iritis keep the pupil dilated.

4. In acute retinitis, unaccompanied by iritis, keep the pupil contracted, in order to keep out as much light as possible.

5. The only relief for senile cataract is surgical interference.

6. The rule is that all acute purulent discharges from the conjunctiva are contagious.

7. The only proper method of testing the vision in persons possessing the power of accommodation is to suspend that power by paralyzing it, and then pursue the usual method with the trial lenses.

8. Jequirity is a dangerous remedy as well as an unreliable one, and should not be used by unskilled persons.

9. All kinds of strong caustic applications are contra-indicated in the treatment of acute purulent inflammations of the conjunctiva.

The best results are obtained by frequent cleansing with mild saline solutions, and the use of weak solutions of the vegetable or mineral astrigents (excluding nitrate of silver), a solution containing five grains of tannic acid and three grains of carbolic acid to the ounce of water, or from one-half to one grain of the sulphate of copper to the ounce of water will be found among the most efficient agents.

10. It is always good surgery to remove a foreign body from the eye, provided it is not entirely within the globe behind the iris. If the foreign body is between the iris and the cornea, prompt removal is urgently demanded.

Great care must be taken in order to avoid wounding the lens, as such an accident would be certain to result in the production of cataract. If the foreign body should be entirely within the globe behind the iris, or if it should be large and partially within the globe, the question to be settled is, whether it will be best to remove the eye or the foreign body.

If the laceration of the globe is not too great it will probably be best to remove the foreign body; and then if the globe becomes violently inflamed, or if sympathetic inflammation of the other eye should occur, remove the diseased member without delay.

11. An eye-ball that is destroyed for visual purposes, and is painful, should be removed without delay, as it may induce inflammation in the good eye, and result in its destruction.

12. Whenever there is one or more small nodules about the margin of the pupil or in the iris in case of iritis, it is almost absolute evidence that the disease is syphilitic.

13. The operation of strabotomy should be performed, if possible, without general anesthesia, because its influence so relaxes the muscular system that it is impossible to determine when the operation is completed.

14. When the iris is wounded and is protruding it should be cut off, and the eye kept under the influence of a mydriatic until the inflammation has subsided.

15. An unskilled person should never attempt to replace a protruding iris, as such a procedure is difficult, and there is great danger of injuring the lens and inducing cataract.

16. Surgical interference is the only means of giving permanent relief to glaucoma. Eserino will give temporary relief, and cocaine relieves the pain for a short time.

17. One of the most efficient agents in tenia-tarsi is an ointment composed of ten or fifteen grains of the yellow oxide of mercury to one-half ounce of simple cerate, or some other suitable article. This is to be applied to the lids night and morning, after thorough cleansing.

18. Poultices of every description are to be avoided in diseases of the eye, unless ordered by some one who is specially skilled in this line of practice.

19. Whenever there is great edema of the conjunctiva, and particularly when this is associated with excessive purulent discharge, the membrane should be snipped in numerous places so as to permit the pent-up fluid to escape, and thus prevent destruction of the cornea, which is always in danger in such cases. Remember that there can be no harm done by this cutting, and if it does not give the desired relief, a tarsarophy should be done.

20. In the majority of cases of strabismus, glasses are necessary as well as tenotomy, inasmuch as the strabismus in most instances is dependent on an optical defect which, if uncorrected, would cause a return of the squint.

21. It is always better to correct squint by means of properly adjusted lens than by tenotomy. —*Med. Herald.*

PROFESSOR HUXLEY ON SMOKING.

At a certain debate on smoking among the members of the British Association, Professor Huxley told the story of his struggles in a way which utterly put the anti-tobacconists to confusion.

"For forty years of my life," said he, "tobacco had been a deadly poison to me. [Loud cheers from the anti-tobacconists.] In my youth, as a medical student, I tried to smoke. In vain! At every fresh attempt my insidious foe stretched me prostrate on the floor. [Repeated cheers.] I entered the navy. Again I tried to smoke, and again met with defeat. I hated tobacco. I could have almost lent my support to any institution that had for its object the putting of tobacco smokers to death. [Vociferous cheering.] A few years ago I was in Brittainy with some friends; we went to an inn; they began to smoke and looked very happy, and outside it was very wet and dismal. I thought I would try a cigar. [Murmurs] I did so. [Great expectations.] I smoked that cigar–it was delicous! [Groans.] From that moment I was a changed man, and now I feel that smoking in moderation is a comfortable and laudable practice, and is productive of good. [Dismay and confusion of the anti-tobacconists. Roars of laughter from the smokers.] There is no more harm in a pipe than there is in a cup of tea. You may poison yourself by drinking too much green tea, and kill yourself by eating too many beefsteaks. For my own part, I consider that tocacco, in moderation, is a sweetener and equalizer of the temper." [Total rout of the anti-tobacconists, and complete triumph of the smokers.]—*Medical and Surgical Reporter.*

IODIDE POTASSIUM IN SPASMODIC ASTHMA.

BY J. A. ORMEROD, M.D.

Although iodide potassium is well known as a remedy for spasmodic asthma, it is a remedy which seems to be held in very varying estimation. Some authorities speak of it as a specific, others say it is worth a trial, others do not mention it at all. I have 36 cases of asthma treated by me, as out-patients, with this drug. All of them displayed, though with varying severity, the cardinal symptoms of the disease, viz., difficulty of breathing, coming on suddenly, usually in the early morning during sleep, passing off after a time so as to leave the patient comparatively well, but recurring usually in a regular fashion, and at regular intervals.

Whatever be thought of the pathology of the disease, its existence as a symptomatic entity is undoubted. And I think that inferences concerning the effect on it of a simple drug like iod. pot. may fairly be drawn from outpatient practice; for (1) though the physician may not witness the spasm, the sufferer is as well qualified as any one to tell of its frequency and severity, and (2) the patient is treated without change of his every-day surroundings, a change which frequently is of itself sufficient to modify this disease.

I have endeavored to classify the cases as follows:

[The writer gives several pages in tabular form showing result of treatment, etc.] Asthma for the most part uncomplicated. Asthma with bronchitis or emphysema; the relation between the two being doubtful. Asthma with secondary emphysema. Asthma secondary to bronchitis or emphysema.

But unless the disease be watched from the beginning and over a length of time, and the physician be able to examine the chest both between and during the spasms, it is difficult to say into which category a case should go.

The iodide was given alone, or if in combination only after the effect of the uncombined drug had been watched. It proved a failure in nine out of the 36 cases, *i.e.*, only in 25 per cent. Its good effects (with a limitation to be mentioned presently) were not limited to the uncomplicated cases. The cases where the asthma appeared to be distinctly secondary to chronic lung disease are indeed too few to say much about; but in some of them at least it did good. The symptoms most amenable to the drug were certainly the nocturnal attacks of dyspnœa; its effect on them was often remarkable; thus in many cases they disappeared altogether; in others they were much reduced in frequency and severity. But a troublesome cough, or certain shortness of breath on rising in the morning, often persisted. That the nocturnal attacks were really controlled by the iodide was shown by the fact that they recurred (in many cases) whenever the drug was stopped. It has therefore the effect of relieving rather than curing. Five or 10 grains three times a day suited best in most cases; in some a larger or smaller dose did better. In some an increase of the dose did good for a time, but the effect semed to wear off.

The condition of the nasal mucous membrane contributes, it is said, to the production of asthmatic attacks; and iodine might therefore be thought to act by producing coryza; but coryza occurred in very few of the patients thus treated. In one case the attacks had been preceded by coryza, and they were nevertheless stopped by iodide.

Syphilitic taint has never, so far as I know, been alleged as the cause of asthma. In one case the substituted mercury for the iodide, and a relapse immediately followed.

The gouty diasthesis is an undoubted cause of asthma, and iod. pot. is known to be useful in cases of gout. But the promptitude of its effect on spasmodic attacks of asthma, and the promptitude of the relapse when it is stopped, makes it unlikely. I think, that it acts by modifying the general condition of the patient.

I believe that its action may be fairly compared to that of bromide in epilepsy. The chemical similarity of the drugs is obvious. There are similarities also between the two diseases; both are characterized by attacks which recur periodically and often with considerable regularity, and which leave intervals of tolerable health. Epilepsy often begins in the night, as asthma does still more frequently. Asthmatic attacks may be preceded by a kind of warning. Both diseases are probably due to some fault in the central nervous system, though in both extrinsic causes may determine an attack.—*Practitioner.*

HYDROCHLORATE OF COCAINE IN THE VOMITING OF PREGNANCY.

Weiss of Prague, has used this remedy successfully in a case of vomiting in pregnancy which had resisted all previous attempts at relief. The patient was weak and anemic, of a nervous disposition, and had suffered in three different pregnancies from persistent vomiting; in the present pregnancy her condition was serious. Weiss prescribed:

℞ Hydrochlorate of cocaine.....gr. ij
Alcohol, enough to dissolve
Water..... ℥ v.

S: One teaspoonful every half hour.

After the sixth dose three tablespoonfuls of milk were well borne; after the eighth, a cup of broth with egg, without vomiting. After the sixteenth dose the patient ate with relish chicken broth, slices of white chicken meat, and drank a glass of wine without vomiting. The drug was then withdrawn for a time, owing to an increased frequency of pulse and respiration; but hourly doses were subsequently given, with the result of entirely checking the vomiting and enabling the patient to regain her former strength.—*Edinburgh Medical Journal.*

THE DIAGNOSIS OF ORGANIC HEART TROUBLES.

BY EMORY LANPHEAR, KANSAS CITY, MO.

There are no problems of physical diagnosis which so puzzle the average practitioner as differentiating between, and recognizing the significance of, the murmurs present in organic diseases of the heart.

It is quite evident that proper therapeutic agents cannot be employed until an exact knowledge of the conditions present in any particular case can be obtained by the attending physician. In most cardiac affections attended by organic change there are distinct murmurs discoverable, and it is only by a proper understanding of these morbid sounds that an accurate diagnosis can be made. Therefore, any guide to their meaning must be acceptable to the majority of the medical profession. To those who hear, but fail to appreciate the precise meaning of these sounds, the subjoined table will prove invaluable.

I am indebted to my friend, Prof. A. B. Shaw, of St. Louis, for this table, he having presented it to the class at the Missouri Medical College in the spring of 1879. Many complex tables have been given to the profession, but this is probably the best, combining, as it does, simplicity with easiness of remembrance; yet comprising all that is needed in making stethescopic examination of the heart stating perfectly the time and location of the murmur, thus indicating what the lesion is, and where it is located. I submit it to the readers of this article, trusting it may prove of as much benefit to them as it has to me:

TABLE OF CARDIAC MURMURS.

Where Heard.	Time of Murmurs.	Significance.
Apex.	Systolic.	Mitral Regurgitation.
	Pre-Systolic.	Mitral Obstruction or Direct Mitral.
Base of Heart and Ascending Aorta.	Systolic.	Aortic Obstruction or Direct Aortic.
	Diastolic.	Aortic Regurgitation.
Base of Heart, conducted toward Ensiform Cartilage.	Diastolic.	Aortic Regurgitation.
Base, conjoined with Jugular Pulsations.	Systolic.	Tricuspid Regurgitation.
Region of Pulmonary Artery.	Systolic.	Pulmonary Obstruction.
	Diastolic.	Pulmonary Regurgitation.

Pages might be written explanatory of this table; in fact, it covers the whole subject of the diagnosis of organic diseases of the heart. With it, all that is necessary is a knowledge of the topographical anotomy of the præcordial region; the location of various structures mentioned being known, and the several murmurs being heard, all that remains is to distinguish between systolic and diastolic sounds, and the diagnosis is accomplished. Without some such table in one's mind, it is impossible to intelligently examine a chest for cardiac trouble.—*Kansas City Medical Index.*

SHALL PATIENT EAT WHAT HE CRAVES?

I often notice in medical journals, and hear it talked by medical men, that people should eat whatever the appetite, that being the true guide to the wants of the system, craves. In theory this may be right, based upon a normal appetite. (Who has one?) but in practice I believe it decidedly wrong.

Whenever we find a person craving some article of food or drink, and we can satisfy ourselves that it is a demand of nature for a needed supply, give it by all means. But there are so many perverted appetites, cravings and desires, that one must discriminate very closely, and think in straight lines, or he will err, and do harm to the body and life.

Country doctors do so little thinking as a rule, that advocates and teachers should be very careful what they teach. Who has not seen an old toper crave his whiskey, an old smoker his tobacco, an opium eater his drug, or a dyspeptic whose secretions are so loaded with latic acid and the mucus membrane of whose mouth, stomach and bowels is so irritated by it, that functions can not be properly performed at all, and still craving and eating pickles, lemons and other sharp acids, etc. Any number of examples might be given, and yet doctors will often tell the patients to eat and drink what the appetite craves. When will medical men learn to think and try to understand vital processes, and realise that disease is not an entity but merely perverted life. This thought might be carried on into the realm of medicine, as well as food, its uses and abuses. There is a field here for both thought and experiment.

E. P. Whitford, M.D.

DROPS FOR EARACHE.

Pavesi recommends a mixture of camphor chloral 2½ parts, glycerine 16½ parts, and oil of almonds 10 parts. This is to be well mixed and kept in a well-closed bottle. A pledget of absorbent cotton is to be soaked with the drops, and then introduced as far as possible into the affected ear, two applications being made daily. Frictions may also be made each day with the preparation behind the ear. The pain is almost immediately relieved.

URINARY INCONTINENCE OF CHILDREN TREATED BY ANODYNES PER RECTUM.

Dr. Edward T. Williams thus writes in the *Boston and M. & S. Jour*:

It is safe to say that the modes of treatment usually recommended for this distressing infirmity are frequently ineffective and disappointing. A failure of my own some years ago, with a child nearly related and especially dear to me, led me to cast about for some improved method. For the past year or two I have been trying, with complete success thus far, the use of anodynes by the rectum, in the form of injections and suppositories of morphine, belladonna or atropine. I have now cured about six cases by this means, besides temporarily relieving many, more who have passed out of sight during treatment, so that I cannot positively state the final results. I have no doubt, though, that a portion of these have been cured. Some of them were patients of the Sea Shore Home, where the length of stay averages less than a fortnight—too short a time to effect a permanent cure in any case. One of my cases, which I will describe presently in detail, had been a constant sufferer for ten years. The treatment occupied a year, off and on. She is now entirely well.

I find that morphine alone relieves for the time being, but does not cure. Belladonna and atropine are curative, when continued long enough, though I find them to be better borne in combination with a little morphine, which counteracts some of their bad effects, and enables them to be given more continuously. Furthermore, the requisite dose of belladonna is smaller when combined with morphine. When these medicines produce headache or undue nervous excitability, I use the bromides as a corrective, or suspend their administration for a time. I have found no case where they could not be borne when properly given.

As to the mode of administration, a fifteen grain suppository of cocoa butter is most easily handled, and that which I prefer. They should contain a proper amount of extract of belladonna and morphine. For a child five years old, say one-eighth of a grain of belladonna extract, and one-sixteenth grain of morphine; but the doses must be carefully adapted to the particular case in hand, beginning with a small dose, with a smaller relative proportion of belladonna, and increasing the latter and diminishing the morphine as toleration becomes established.

If an enema or clyster be preferred, it should consist of about a drachm of lukewarm water, with a few drops of atropia and morphine solution added, and administered with the small hard-rubber syringe (No. 2) especially designed for the purpose. The old fashioned clyster of starch-water and laudanum is absurdly out of date. I have used nothing for years but morphine and warm water, mixed as for a subcutaneous injection, only that the water should be tepid, and not exceeding a drachm in amount. I hardly dare claim to be the originator of this self-suggestive plan, though I certainly never heard of its being done by others before I adopted it out of my own fancy years ago, since which time I have freely mentioned it in conversation and before various societies. It is certainly the simplest form of anodyne clyster.

At the Sea Shore Home, where we do things by wholesale, I have two solutions of morphine and atropia ready made. The first consists of one-sixth grain of morphine and twenty minims of water. The dose by drops therefrom is the same as that of laudanum, which makes it especially convenient for the nurses. The other is one-sixtieth grain of atropine to twenty minims of water. Reckoning one-sixtieth of a grain as an average commencing dose for an adult, the dose for a child may be graduated by drops precisely as with laudanum. For a child five years old, then, as an enema, you might give for a commencing dose from three to five drops of each solution, mixed with a teaspoonful of warm water. These doses may be differently combined or altered in any way to suit a particular case.

I mention these points because it is convenient to have both in private and hospital practice certain methods of routine, not only to save thought and labor, but to lessen the chances of mistake.

I will conclude by recounting a single case as an illustration of this mode of treatment. A bright and charmingly pretty girl of fourteen came under my care for this disease July, 9, 1883. Had been subject to it for years, in fact nearly all her life. Was of a peculiarly sensitive, nervous temperament, and subject to convulsions in infancy and early childhood, for which I had myself attended her. Was just beginning to menstruate. The urinary trouble had become a great source of mortification to her, and her shyness about it was so great that she could not be brought to talk with me on the subject, so that all comminication had to pass through the mother, a thing I should hardly have put up with if it had not been one of my particular families. This being my first case (of rectal treatment) I began with morphine alone, one-sixth of a grain nightly, in suppository. Failing to produce full relief I doubled the strength, making one third of a grain, when she went nearly a month without once wetting the bed. On stopping the suppository the trouble quickly returned. Recommenced the one-third grain suppository on September 14th, with full relief of the incontinence as before, but the patient, who was attending school all the time, began to get "fidgety" and nervous from the effects of the morphine, so that I was compelled to give small doses of bromide of potassium daily. This relieved the nervous symptoms entirely. I then began to taper off on the morphine, giving a suppository every second or third night instead of every night, or occasionally halving the suppository. On this treatment she began to wet more frequently, and I became satisfied that morphine alone would not cure her. October 29th I prescribed a suppository

containing one-sixth grain of morphine and one-fourth grain extract of belladonna. On December 10th I made it one-eighth grain morphine and one-half grain extract of belladonna. Both these answered perfectly, and in six weeks she was practically cured. In the succeeding six months she did not wet more than six times, but each time was carefully followed by the use of the belladonna suppository for one week to prevent a relapse. For two years now, since the summer of 1884, she has been perfectly well, and improved greatly in general health.

I might report other cases far more rapidly cured. I select the above on account of its long standing, and, since I was obliged to proceeed somewhat tentatively, as showing very well the comparative action of morphine and belladonna. The latter I have never given without some morphine, believing they act better in combination, as they do when given by the mouth.

From my present experience I regard the rectal treatment as superior to all others in this disease.

THE SURGICAL TREATMENT OF SUBINVOLUTION.

Dr. A. Palmer Dudley thus writes in the *N. Y. Med. Jour.*, September 4 :

"These patients were at once put upon the use of hot vaginal injections twice daily. If there was cystic degeneration of the cervix, all of the cysts that could be reached were tapped. If the os and cervical endometrium were granular, appropriate treatment for it was given; and applications of Churchill's tincture of iodine to the cervix and vaginal roof, together with glycerine tampons, were used in some cases as often as every other day. That this method of treatment was beneficial no one for a moment could doubt, but it did not cure my patients. It did not relieve the weight and dragging pains, or do away with the foul leucorrhœal discharges of which the patients had so long complained.

"After each patient had been kept under this form of treatment for a certain time, she was put under an anæsthetic, and the depth of the womb carefully noted. If menorrhagia had been her habit, the cervix was rapidly dilated and the endometrium carefully but thoroughly curetted with Bozeman's curette, and then touched with a 1 to 2,000 solution of bichloride of mercury, wiped dry, and again touched with glycerite of carbolic acid. Many prefer the use of Churchill's tincture of iodine for this purpose, believing it more efficacious in preventing a return of the fungosities; but, in cases where the cervix is to be operated upon, the use of the iodine is disadvantageous, on account of its discoloring the parts and rendering the operation more difficult. After this treatment of the endometrium, if the cervix was lacerated, I operated for its closure after Emmet's method, going deep into the angles of the laceration. If the cervix was not lacerated, I operated after the following manner: I steadied the cervix with a heavy, curved tenaculum, and, with a pair of sharp narrow-bladed scissors, I made a deep, narrow V-shaped incision in each side of the cervix, extending the incision, if possible, deep enough into the uterine tissue to sever what we ordinarily style the circular artery. Then, after letting the incisions bleed quite thoroughly, I closed the wound by passing sutures from without inward across the incision, taking care that the first sutures ligated the several vessels. After the operation, warm water vaginal injections were used for cleanliness only. If the uterus was retroverted, a pessary was fitted and allowed to remain in position while the wound was healing."

The results were satisfactory.

THE MILK TREATMENT.

T. A. McBride, M.D., New York.

The patient is to use *skimmed* milk, and *skimmed* milk alone; no other kind of nourishment.

The patient is to take, three or four times daily, and at regularly observed intervals, from two to six ounces of skimmed milk.

This must be taken slowly, and in small quantities, so that the saliva may be will mixed with it. The reaction of the milk to test paper must be neutral or alkaline.

The first week is the most difficult to get over, unless the patient has a strong will.

During the second week two ordinary quarts may be consumed during the day. The milk must be drunk four times daily; at 8 a.m., at noon, at 4 and 8 p.m. The hours may be changed, but regular intervals must be maintained.

If the patient comply with these directions he will complain neither of hunger or thirst, although the first doses appear so very small.

The daily quantity may be increased to eighty or more ounces.

If after having attained this quantity or more, and the patient gets worse, diminish the amount to the quantity used the first week, and increase more slowly.

Constipation at the beginning is a good sign. This may be remedied by warm water injections, or by the use of castor oil, rhubarb, addition of sugar of milk to the milk, or by taking some bicarbonate of soda at bed-time. If the constipation be obstinate, a little coffee may be added to the morning dose of milk, or towards 4 p.m., stewed prunes or a roasted apple.

If, on the other hand, diarrhœa result, and rumbling of the bowels is frequent, the milk is too rich or is being taken in too large doses.

Feverishness is no contra-indication to its use. If the patient is very thirsty he may drink Clismic, Bethesda, Poland or Vichy Water. If he have a strong desire for solid food at the end of the second or third week, he may have a little stale white bread or toasted bread with salt, in the morning and again at 4 p.m. Once a day he may have some soup made of milk and oatmeal.

After continuing this treatment for five or six weeks it may be modified, by allowing the milk only thrice daily, and once a day steak or a chop. Raw meat digests most easily, and should be used in preference to the cooked, when possible.

It may be necessary to add a little salt to the milk in some cases, and in others to have the milk drank when very hot. If the patient become flatulent, buttermilk is often beneficial in small quantities.

THE TREATMENT OF SCALP WOUNDS AT THE CHAMBERS STREET HOSPITAL.

Dr. C. R. Parke, in an article published recently in the *New York Medical Journal*, makes the following statements :

Our present method of treating a scalp wound is as follows : Upon admission of the patient, the wound and bloody hair are thoroughly cleansed with a douche of the hydronaphthol solution, next the hair is carefully cut with scissors for about one inch around the margins of the wound, after which it is cleanly shaved ; the wound is now again cleansed with the hydronaphthol, all clots and foreign bodies being removed, and careful examination for fracture made. This not being found, we proceed to the dressing, which consists in inserting ten or twelve horse hairs through the bottom of the wound, the opposing edges of the wound being carefully approximated and sewn together with catgut sutures, the horse hair projecting about three-fourths of an inch beyond the ends of the wound and thus acting as an excellent drain. The wound is now again washed with the hydronaphthol, and powdered iodoform lightly dusted over the line of the sutures, upon which are applied a few layers of iodoform gauze ; over this is placed a large compress of absorbent gauze, extending several inches beyond the wound on every side, the whole being held in place by a bandage, the style of which depends upon the location of the injury. The patient is told to return in two days, provided no pain or unlooked-for symptoms arise, under which circumstances he is requested to return at once. Upon returning two days later, as a rule, we find primary union throughout the entire length of the wound, excepting at the ends where the drain protrudes. We have now converted the open scalp wound into a perfectly drained sinus. All but three or four of the horse hairs are removed, the sinus is irrigated with the hydronaphthol solution, and the same style of dressing re-applied. In two or three days more the sinus has so narrowed down that the remaining horse hairs can with safety be withdrawn, and complete healing can occur under the dressing then applied ; the catgut sutures are absorbed and give rise to no trouble. The wound thus heals with little or no scar, as compared with the plan which allows the wound to granulate from the bottom, and furthermore offers the advantage of healing in a much shorter time. The virtues which I maintain for the hydronaphthol solution over those possessed by the carbolic acid and bichloride solutions are that it is without odor, and does not burn or discolor the hands as carbolic acid does, neither does it ruin one's instruments nor cause any danger from absorption, as if the case with the bichloride, while at the same time it is a perfect deodorizer, non-irritant, and, as I think, a desinfectant.

In order to give a little idea of the results we obtain under this method of treatment, I took at random 30 out of the 123 cases treated here in thirty days and carefully looked the patients up ; five of them never returned after the first dressing was applied. Of twenty-five there was a full record until they were discharged cured. The longest period that any patient was under treatment was ten days, and the shortest three days, the average being six *plus*. The greatest number of dressings employed in any case was six, and the smallest two, the average being three *plus*.

THE CANADA MEDICAL RECORD.

A Monthly Journal of Medicine and Surgery.

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TO OUR SUBSCRIBERS.

We beg that our subscribers will look at the date on their address label. That date is the time to which their subscription is paid. Every now and then we get a note, asking for a statement of how the writer stands with regard to his subscription. Such a request is unnecessary. Every month the subscriber can tell exactly his indebtedness

by looking at the label on his Record. We regret to say that a great many are very far in arrear. Will *all* our subscribers look at their label, and remit to us what is necessary.

PERSONAL.

Dr. Longeway, (M.D., Bishop's College, 1886,) has removed from Highgate, Vermont, to Montreal, where he has commenced practice. He has also been appointed an Assistant Demonstrator of Anatomy, in the Medical Faculty of his Alma Mater.

Dr. Freleigh, M.D., Bishops' College, 1886, has commenced practice in Montreal.

Dr. McCow, M.D., McGill, 1886, has commenced practice in Montreal.

Dr. Schmidt, M.D., McGill College, 1886, has settled in Montreal.

Dr. Wood, M.D., McGill, 1876, has returned from Florida and commenced practice in St. Johns, Que.

REVIEWS.

The healing of arteries after ligature in man and animals. By J. Collins Warren, M.D., Assistant Professor of Surgery, Harvard University; Surgeon to the Massachusetts General Hospital; Member American Surgical Association; Honorary Fellow Philadelphia Academy of Surgery. One Volume. 184 Pages. Superbly illustrated with Twelve Full-page Plates in Black and Colors. Parchment Muslin Binding. Price $3.25. William Wood and Company, New York.

The great facilities afforded the author have enabled him to present to the profession a monograph at once comprehensive and original. The importance of the subject to the surgeon is evident and though much has been written elsewhere the author, while not discarding the labors of others, arrives at conclusion based upon his own observations and, therefore, valuable. The work is rendered more valuable by the excellent plates which illustrate the different phases through which the vessel passes after ligation and until no further change occurs.

Separate chapters are devoted to the history of the ligature, experiments on animals, the ligature of arteries in man, as shown by specimens from the different museum, closure of fœtal vessels. The summary on chapter fifth includes his conclusions and an appendix describing the methods employed in these investigations. A Bibliography containing 235 references and an index complete the volume.

The Physician's Pocket Day-Book. By C. Henri Leonard, M.A., M.D., Detroit, Mich. Price $1.00.

This is a very convenient form of visiting list, and accommodates daily charges for 25 or 50 families weekly, an obstetrical record and Dr. and Cr. cash account. For the young physicians commencing practice it will be found one of the best diaries extant, as it serves the purpose of day book and ledger combined. It is arranged for 13 months, and the record may begin at any month of the year.

A Laboratory Guide, in Urmalysis and Toxicology. By R. A. Witham, A.M., M.D., professor of Chemistry and Physics, University of the city of New York, etc. Wm. Wood & Co., New York.

A concise and practical guide, very suitable for laboratory work, is every alternate page left blank for the purpose of entering additional notes. We commend this little work to the student or busy practitioner as a very useful aid for the purposes indicated.

Outlines of the Pathology and Treatment of Syphilis and allied venereal disease. By H. Von Zeissl, M.D., late professor at the Imperial Royal University of Vienna, translated by H. Raphael, M. D., Bellevue hospital, one volume, 402 pages. D. Appleton & Company, New York.

This is a second edition of this work, the success of the first inducing a revision of the text, so as to make the description of venereal diseases as perfect as possible. The value of the work is attested by the fact that the author devoted a lifetime specially to the study and treatment of these affections. The descriptions are concise and graphic, prominence being given to the pathology of the structures concerned, and the remedies and formulas are such as have been found, by long clinical experience, to be best adapted for the treatment of the different phases of these diseases. Although the work offers but little that is new, still the practical physician, whose time does not permit the study of more extensive works, will find this a valuable aid in his practice.

THE CANADA MEDICAL RECORD.

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Original Communications.

ROCK AND RYE IN ACUTE AND SUB-ACUTE BRONCHITIS.

BY HEBER BISHOP, B.A., C.M., M.D., BOSTON, MASS.

I have had excellent results in the administration of rock and rye in acute and sub-acute forms of bronchitis, and have found it of particular value in children. The ease with which the ordinary patient will take the drug renders it worthy of a trial.

As a proof of its efficacy I will cite one instance (that of a child two years old). I was called to the patient at 5 o'clock in the evening, found that the child had commenced with an ordinary coriza, running from the nose, which had been observed for two or three days; the night before had commenced to cough, which during the day had become so severe that I was summoned in the afternoon.

The general appearance of the child was indicative of capillary bronchitis respirations 72 per minute, pulse 150, temperature 102° the alæ nasi dilated and the face turgid and purple with that frightfully distressed appearance. Urine scanty (had not micturated for 18 hours); with each cough the child would cry out.

Upon listening with the stethoscope coarse, harsh, rales were heard over both lungs, with some fine mucous crepitation over a portion of the left lung behind. I immediately ordered linseed meal poultices to be applied, enveloping the chest and back completely, and prescribed a mixture of syr. ipecac. (min. 5) syr. Acacia (min. 15) and Morphia (gr. 1-50th.) to be administered every four or five hours; and directed that a teaspoonful of rock & rye and glycerine be given in as much water every two hours. At my visit next morning found the child better and sleeping quietly, did not disturb her. Discontinued the syr. ipecac. Acacia and morphia but continued the rock & rye and glycerine at regular intervals of two hours.

At my evening visit found the child sitting up and playful, all acute symptoms subsided, pulse 118, temperature 99. Respirations 33. This remarkable change had occurred in 24 hours.

In nearly every case of bronchitis that I have given it, rock & rye controlled the cough besides acting as a stimulant, and in young children it does not bind up the bowels the same as Brandy will often do. In winter cough (so called) it exerts a very soothing effect.

UNIVERSITY BISHOP'S COLLEGE.

THE ANNUAL DINNER OF THE MEDICAL UNDERGRADUATE'S SOCIETY.

The annual dinner of the Undergraduates of the Medical Faculty of the University of Bishop's College came off on December 9, 1886, in the Ladies' ordinary of the Windsor Hotel, and was marked by much cordiality. Some seventy-five gentlemen, some representing the other universities, sat down to an excellent dinner, to which full justice was done. Dr. F. W. Campbell, M. A., M. D., L. R. C. P., London, Dean of the Faculty, occupied the chair. On his right were seated Mr. Heneker, Chancellor of the University, Dr. Anderson, United States Consul General; Dr. McEachran, Mr. J. S. Hall, M.P.P., Dr. George Ross, representing McGill, and Dr. Proudfoot. On the left of the

chairman were Dr. Adams, Principal of the Bishop's College School, Lennoxville; Alderman White Acting Mayor, Dr. Hingston, Messrs. Alex. Murray, David Burke, I. H. Stearns and Dr. Lapthorne Smith. After dinner Messrs. Rholler (sole), Tait, Jubb, Clarke and Fairfield sang in a very acceptable manner "Thy face I never see." The secretary of the committee, Mr. Albert E. Phelan, then read letters of regret at inability to be present from the following—Sir John A. Macdonald, the Lieut-Governor of Quebec, General Sir Frederick Middleton, the Lord Bishop of Quebec, the Lord Bishop of Montreal, the Mayor, Rev. Cannon Norman, D. C. L., R. N. Hall, Q. C., M. P., L. H. Davidson, Q. C., the Faculty of Trinity College, Rev. James Hepburn, Dr. Roddick, Dr. R. P. Howard, Dr. James Bell, Dr. Sirois, Three Rivers; Dr. Freligh, Dr. Spendlove, Magog; Dr. Thomas, Green Bay, Wis; Dr. McEachran, Dr. Chas. McEachran, Dr. Stevens, Durham; J. M. Kirk, Ald. H. R. Gray, Hon. S. P. Stearns, former U. S. Consul, Major Vidal, St. John's Infantry School, Dr. Lafontaine, Chambly, and Dr. J. B. Saunders.

THE QUEEN.

"When I forget my Sovereign
May my God forget me."

—*Harlow.*

In proposing this toast, which was drunk with enthusiasm, the chairman paid a high tribute to Our Gracious Sovereign, and expressed the hope that Montreal would honor her jubilee in a becoming manner. The company sang the national anthem.

THE GOVERNOR-GENERAL.

"Not a hero but a man and a brother."

—*Thackeray.*

This toast was also given by the chairman, who remarked that he remembered all the Governor-Generals of Canada since Lord Elgin, and he was glad to say that none were more accomplished and scholarly than Lord Lansdowne. The toast was duly honored, the guests singing "For he's a jolly good fellow."

"PRESIDENT OF THE UNITED STATES."

"The government of the people, by the people and for the people shall not perish from the earth."—*A. Lincoln.*

The chairman, in giving this toast, stated that the relations existing between the peoples of Canada and the United States were of the most cordial nature, notwithstanding the fact that the Canadians wanted to catch all the fish within the three miles limit. [Laughter.] The line which separated them was but an imaginary one. Canadians had the highest respect for their great neighbors, who had been especially fortunate in selecting good men to represent her here. In appointing Dr. Anderson President Cleveland had selected a worthy and accomplished gentleman, while at the same time honoring the medical profession to which they were all glad to belong. The toast was heartily honored, the orchestra striking up "Yankee Doodle."

Dr. Anderson was given a very cordial reception on rising to respond. He remarked that he had just finished reading the Fisheries correspondence and felt in a warlike mood (laughter) when he had been called upon by a delegation and invited to be present at the dinner to answer to the toast to the United States. He was glad to observe that hardly an event of this kind was allowed to pass without a toast being given to the United States. This indicated that an amicable feeling prevailed here for his country. As a citizen of the United States he thanked them most heartily for the honor done him. Dr. Anderson closed with some humoristic allusions at the expense of the profession to which he and the guests belonged.

MAYOR AND CORPORATION.

"The best laid schemes of mice and men gang aft agley"—*Burns.*

The chairman in proposing this toast observed that if Montreal did not receive her fair share of representation in the Legislature she certainly was well represented in the City Council. Each ward had three aldermen. At the present rate of annexation this body would become as numerous as the Dominion Parliament. [Laughter.] After paying a compliment to the Mayor for his conduct in trying circumstances, he called upon Ald. White to respond.

The acting Mayor thanked the company on behalf of the Mayor and his colleagues of the City Council for the toast drunk in their honor. As the corporation was growing rapidly be hoped too many of its schemes would not "gang aft agley." He hoped that that body would always do all in its power to further the interests of the great educational interests of the city with which his hosts were so intimately connected. He concluded by again thanking them for their kindness and wishing all success to Bishops' University.

ALMA MATER.

"May youth and honor
court thy hallowed shades."

Dr. R. A. Kennedy proposed a toast to "Alma Mater" in appropriate terms. In the course of his remarks he stated that it had often been asked

why the Medical Faculty of Bishops' had been established in this city. Those who had questioned the usefulness of this undertaking found an answer in the good work which it was now doing, and in the success which had crowned its efforts. The Faculty had done a great deal to elevate the standard of medical education, which was every day becoming more extense. There were now over 1,000 medical students in the Dominion of Canada in 1885 and 231 graduates. The men who had been trained in Bishops' were a credit to the profession. He closed by referring to the statement which had been circulated, that it was contemplated to remove the University from Lennoxville to Montreal. He hoped this was true, and would be accomplished. He called upon the Chancellor to respond.

The Chancellor was very heartily received on rising. To answer to such a toast, he said, was an easy task as it had the full sympathy of all. The subject, however, was so large and included so many ideas, that he did not know exactly which one to touch upon. Two points, however, had come prominently before him, and to these he would refer. As to the idea of removing the University into Montreal, he would say that nothing was known of the project at Lennoxville. If the scheme could be carried out, however, it would open for the University a larger sphere of usefulness than that to which it was now limited by being situated in the country. It was a matter which was well worthy of consideration. They could rest assured, however, that as long as the University remained at Lennoxville it would do all in its power to turn out men second to none. (Applause.) They would look more to quality than quantity. With regard to the Divinity Faculty, an important scheme had been discussed in the last Synod, and this consisted in bringing all divinity degree conferring powers under one organization. While Bishops' was determined to maintain its full rights, as granted by its Royal charter, it would like to see the formation of an Examining Board, made up from the different universities, which would stamp upon divinity degrees that character which would make them respected the world over. Some years ago an appeal had been made by Bishops' University to the sister universities, to join in the formation of an Examining Board in the arts; but, unfortunately, had met with no response. If the standard of Bishops' was not sufficiently good they were willing to raise, but if, on the other, that of the other universities was not what it should be, it was for them to elevate theirs, and the consequence would be that Canada would turn out in divinity men who would be respected everywhere. The same was the case in the medical profession. Bishops', which possessed the same rights as Oxford, Cambridge, London and Durham Universities, would be inconsistent if it gave up an iota of its rights. He felt that the best interests of Canada required that its higher education should be respected the world over. A general Examining Board would achieve this desirable result. If a man went out of the universities in Canada after having undergone an examination before the General Board, that man would at once be favored with the confidence of the public. (Applause.) The second point to which he desired to refer to was the want of representation in the governing bodies of the country of interests of higher education. At Quebec there were lawyers and physicians but the learned bodies were unrepresented. The suffrage had been so lowered here as well as in the old country, that the ignorant classes were fully represented, while nothing had been done to secure representation for the learned classes. In England the universities were represented in Parliament, and why should not the same thing exist in Canada? (Hear, hear.) The subject was such an important one that pressure should be brought to bear on the Government to consider it. Whether the universities should be represented in the local or federal parliaments was, of course, a matter for thought. Under the present system the general interests of education were in the hands of a Council of Education at Quebec and a Minister of Education at Toronto. Both, however, gave up all their attention to the common schools and had nothing to do with universities. If the universities of the country were braught more closely together the alliance would partake of a more general character and this would, perhaps, be a reason why these learned bodies should be represented in the Dominion Parliament. Without hurting any one's feelings he could well say that there was less intelligence, as a rule, in the Legislatures than in the Dominion House. There was a more pressing need of elevating the intellectual standard of the Legislatures, and there was no reason why the highest class of intelligence which was to be found in the universities should not be represented. (Applause.) The chancellor closed by staing that the Univesity took the greatest interest in

the medical school and hoped that it would continue to prosper. It always had sent men all over the country, to the United States, the West Indies, and even China and Japan, and everywhere the name of Bishops had been honored and respected. He wished them all the success which they deserved.

Principal Adams also replied to the toast, and thanked the Chancellor for the very valuable suggestions which he had made. The present year was a very encouraging one for Bishops', and and there was a larger entry at both the Lennoxville school and the medical school. He was glad to see that many of the art students of the school had joined the Montreal school, and concluded by wishing every success to their Alma Mater.

Dr. Proudfoot then sang "Me Ain Bonnie Mary."

DEAN AND PROFESSOR.

"Men who their duties know, but know their rights, and knowing dare maintain."

This toast was proposed in suitable terms by Mr. W. E. Fairfield, the vice-chairman, and was duly acknowledged by Dr. Wood in a very amusing speech.

SISTER UNIVERSITIES.

"Their cause I plead, plead it in heart and mind,
A fellow feeling makes us wondrous kind"
—*David Garrick.*

This toast was proposed by the vice-chairman, and heartily honored.

Dr. George Ross, representing McGill, responded in an appropriate speech. He said the kindest feeling existed between universities. They worked together in the greatest harmony, and McGill took great interest in Bishops', to which many of its graduates were now attached as professors. He congratulated then upon their success, and hoped that their friendly rivalry would always be stamped with good fellowship.

Responses were also made by Mr. Ferguson, of Kingston University, Mr. Edgar, of McGill, Mr. C. T. Moral, of Victoria, and Mr. J. Mount, of Laval.

HOSPITALS.

"I was sick and ye visited me."

This toast was proposed by Dr. Trenholme, and responded to by Dr. Hingston, who expressed the kindliest feeling for Bishops' and paid a high compliment to the general excellence and earnestness of its undergraduates.

Dr. Perrigo also acknowledged the toast on behalf of the Western Hospital.

SISTER FACULTIES.

"Who shall decide when *Doctors* disagree."
"Possession is *nine* points of the *law*"
"O! star eyed *science* hast thou wandered here."
"Healthy *religion*, a sound mind in a sound body."

This toast was proposed by Dr. Trenholme, and after being duly honored, was responded to in suitable terms by Mr. Hamilton of the arts faculty.

OUR GUESTS.

"Happy to meet sorry to part."

Mr. Heneker, in responding, expressed the hope that all would attend the annual dinner of the Alma Mater, which would be held shortly in Quebec.

OUR GRADUATES.

"To-morrow, to fresh woods and pastures new."—Milton.

The toast, which was enthusiastically honored, was proposed by Mr. James M. Jack and suitably acknowledged by Dr. R. Wilson.

Other toasts followed to the "Class of '87," "Be ready for all changes in the future." "Our Freshmen"—"With smiles that were childlike and bland."

THE LADIES.

"A perfect woman nobly planned;"
"To warn, to comfort and command."

"The Press"—"The pen is mightier than the sword."

The proceedings were concluded by the singing of the National Anthem.

The following gentlemen forming the committee are entitled to great credit for the success attained: Dr. F. W. Campbell, chairman, W. E. Fairfield, '87, vice chairman, Dr. R. A. Kennedy, Dr. J. B. McConnell, Dr. H. L. Reddy, Dr. A. L. Reddy, Dr. A. Smith, Rollo Campbell, '87, F. H. Pickel, '88, Jas. M. Jack, '89, C. E. Elliott, '90, and Albert E. Phelan, '87, secretary.

Gruendwald's orchestra was in attendance and contributed a select programme.

Society Proceedings.

MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

Stated Meeting Oct. 22nd, 1886.

PRESIDENT, IN THE CHAIR.

Aortic Aneurism.

The president called on Dr. M. C. McGannon, of Brockville, who was present, to give the history of an interesting specimen of double aneurism of the arch of the arota shown by him to the society.

Dr. McGannon said that the patient was well six months ago. First symptoms were those of a severe bronchitis. Resonance was complete on both sides but absence of breathing on the right side, patient at that time had no pain, temperature and pulse were normal, and heart sounds slightly accentuated. Later a pulsation could be discerned to the right of the sternum. Temperature went up and the lungs became consolidated, patient lost appetite, cough with expectoration increased. But at no time was there any peculiarity of the voice or any signs of pressure, except on the bronchi.

In reply to Dr. Smith, Dr. McGannon stated that the patient died from exhaustion. Dr. Ross asked if there was any tugging at the trachea perceptable. Dr. McGannon replied in the negative.

Dr. Johnston said that the specimen showed that both aneurisms were of very rapid growth, and in neither was there any signs of lamination in the clot.

Dr. Gardner exhibited the following pathological specimens obtained during the previous ten days.

I. A submucus hyoma was removed by enucleation. The patient was the mother of several children, the last born 5 years ago, and had suffered from uterine hemorrhage ever since. After dilating the uterus the capsule was slit up, the tumor grasped with a vulsillum, separated by the finger and dragged from its bed. The shreds of capsule trimmed off, the cavity well douched with hot water, and Churchill's iodine freely applied. No drainage or irrigation was practiced. The patient made an easy and rapid recovery.

Cystic tumor of the labium.

II. A cyst of the left labium magus of five years growth and the size of a hen's egg. It was easily enucleated entire. This was probably a degenerated gland of Bartholine extirpation of a cancerous uterus.

III. A cancerous uterus from a patient of 49 years. Patient had interior pelvic pain and the other usual symptoms of malignant disease of uterus. Examination before the operation proved that within the broad ligament near the pelvic glands were seriously involved. The removal was performed by the vaginal method.

The patient being placed in the lithotomy position, and so retained by Clover's crutch, the uterus was drawn downwards and forwards to the pubes and the vaginal mucous membrane incised all round the cervix. Then the base of each broad ligament was ligatured by transfixion with a curved needle carrying strong silk. Next the posterior cul-de-sac was opened into the Douglas pouch and the bladder separated completely. The uterus was then retroverted through the posterior cul-de-sac. After this the broad ligaments in their upper parts were clamped on each side with Terrier's clamps for the purpose, and the amputation of the uterus completed. Some bleeding points were secured and the operation completed by a T dranage tube laid in the Douglas pouch. The clamp forceps were removed at the end of three days and the drainage tube a day later. The patient recovered without a bad symptom.

Ovarian Cystoma.

IV. A mullelocular ovarian cystoma removed from a lady of 68 years. In this case, 48 hours after the operation, the patient developed a pleuresy of the right side, which extended to the left two days later. The pulse reached 175 per minute, and was irregular and intermittant. This was promptly checked by ten minute doses of tincture of digitalis every 4 hours. No symptoms referable to the operation appeared, the alarming chest complication soon amended and rapid and complete convalescence took place.

Ovarian Cystoma.

V. A mullelocular ovarian cystoma from a young lady of 22. There were some adhesions, and troublesome bleeding from a rent in the broad ligament as oozing continued after applicature of a continuous suture; a drainage tube was used for 48 hours. The second ovary was found cystic and removed. Dr. Gardner remarked that Schroider formerly saved any portion of the second ovary not seriously involved, but of late had discontinued the practice. Dr. Schroider cites a case where pregnancy took place after removal of one ovary and part of the second.

Discussion.

Dr. Trenholme referring to Dr. Gardner's method of extirpation of the uterus, stated that his method of procedure usually consisted in retrovertion of the uterus, and, after ligation, removal of it piece by piece, separating the anterior wall from the bladder with the finger. As the disease returned in two cases this year, in his practice, after removal of the uterus he has lost faith in the operation of extirpation of the uterus for magligant disease.

Dr. Kennedy thought that cutting through the

posterior cul-de-sac shortened the operation, and that the Terrier's clamp would greatly simplify it.

He asked Dr. Gardner for statistics of the operation.

Dr. Gardner in reply stated that the mortality after total extirpation of the uterus, was not more than 10 to 12 per cent. on the continent, but it was to be remembered that in France, especially, the uterus was frequently removed for other causes, *e.g.*, incurable prolapsus, etc.

Stated Meeting, Nov. 5th, 1886.

J. C. CAMERON, M.D., PRESIDENT, IN THE CHAIR.

Abscess of the brain.—Dr. PROUDFOOT exhibited specimens from a case of abscess of the brain, and gave the following account of the case :—

This patient, female, aged 20, was admitted to the Western Hospital, under Dr. Perrigo, July 4th. At the time of admission she was suffering from intense pain in the head and distressingly loud tinnitus aurium, with discharge of pus from the meatus. There was also constant retching and vomiting, the patient being unable to retain any food upon the stomach. Dr. Perrigo examined the patient, and finding a large polypus blocking the meatus transferred her to my care. The polypus was removed under ether, and the tympanic cavity thoroughly cleansed by a stream of warm water, there being a large perforation of the membrane through which the polypus passed. The polypus was the ordinary mucous variety. The after-treatment consisted in syringing the ear with warm water every two or three hours and a 4-gr. solution of zinc sulph. dropped into the ear; and as there appeared a slight redness of the skin over the mastoid process, a small bag of ice was kept over that part. There was no vomiting after the removal of the polypus, and on the following day the patient seemed much better and was able to take some food, although the appetite was not good. All redness and tenderness over the mastoid process had entirely disappeared, but the pain in the head was still complained of, though not so severe as at first; the pain was always referred to the base of the skull on the affected side. There was no irregularity of the pupils, and their mobility was fairly good. The pulse remainded about 60 and the temperature never above 100°. The discharge from the meatus was profuse. On the 9th the patient complained of increasing pain in the head, and there was considerable uneasiness. She was put upon potass. bromid. grs. x every four hours, but the patient appeared to be getting gradually worse, and on the 13th I determined to remove the whole of the mastoid, if necessary, in hopes of giving some relief, although I was convinced from the first time I saw the patient that the brain had already become affected. She died suddenly at 6 o'clock the following morning. The nurse had syringed her ear and gone from the ward; when she returned in a short time she found the patient had drawn the bedclothes over her head and died without making the slightest sound. Previous to her admission into the hospital she had been treated by a physician for syphilis, and her breath had the mercurial fœtor. I also found that she had complained of pain in the head and had been unable to retain anything upon her stomach for about two weeks before I saw her. It was therefore more than probable that the abscess of the brain had started before her admission to the hospital. The abscess was a large one, containing a large amount of fœtid pus, and extending from a perforation in the posterior part of the petrous bone, close to the semi-circular canals, right across the lobe of the brain, until it finally pressed upon the medulla, accounting for the sudden death of the patient. I am convinced that no operation would have saved the life of the patient.

Dr. JOHNSTON exhibited a specimen of *colloid cancer of the rectum*, which involved the whole circumference of the gut for five inches above the anus. Infiltration most extensive in anterior wall and involved the prostate gland. Inguinal gland, on both sides, infiltrated by colloid cancer. Recto-peritoneal glands uninvolved. One small cancerous nodule in lung, and an extensive acute softening tuberculosis.

Dr. SHEPHERD exhibited a *kidney with tubercular pyelitis;* also a large *calculus*, extracted with great difficulty from the pelvis of kidney. Weigh of calculus 4 ozs. 7 drs. Patient doing well at date, one week after operation.

Dr. KENNEDY exhibited the *tubes and ovaries* which he had removed from a patient in the Western Hospital. The woman was 27 years old, and gave the following history : She was married at 18, and shortly afterwards became pregnant; at the same time had an attack of gonorrhœa. So far as could be ascertained, both conditions were coincident. She miscarried at the fifth month, was very ill and confined to bed for weeks afterwards, and has never been well since. Her

husband's death obliged her to follow the occupation of saleswoman, which aggravated the condition. Menstruation became frequent and painful, so that ultimately, at these periods, she was compelled to keep her bed and use narcotics. During the interval the pelvic pain was continuous. After some years she again married, but found sexual intercourse painful. She had for years sought relief, and being advised to try change of climate, had gone to Australia, and lately had come to Canada. About a year ago she applied to Dr. Kennedy, and various remedies were tried in vain. Local examination did not reveal anything positive beyond apparent enlargement of both tubes and extreme sensitiveness of the pelvic organs. As the patient was becoming a confirmed invalid, and the history and symptoms indicated diseased tubes, an operation was suggested and acceded to. On October 9th she was operated on, and the tubes and ovaries removed. The tubes are enlarged, with thickened walls, and perfectly occluded at the free extremity from agglutination of the fimbriæ; cystic degeneration had also commenced in both ovaries. This patient could not possibly have again conceived. No pelvic adhesions were found, the uterus being freely moveable and smaller than normal. The patient progressed favorably, and is now fully convalescent.

Dr. Wm. Gardner read a paper entitled "Glimpses of Abdominal Surgery in Europe during the past Summer."

Dr. R. P. Howard thought the account of the two cases of laparotomy in puerperal peritonitis of extreme interest. He thought that physicians ought to be far less reluctant that at present in adopting this means of treatment. He also asked for Tait's treatment of peritonitis after operations.

Dr. Hingston had witnessed recently Keith of Edinburgh operate. His operation contrasted with those mentioned by being a slow one. He divides pedicle by actual cautery, and waits for all oozing to cease. His incision is a free one.

Dr. Cameron wished to know if anyone would, in his opinion, be justified in neglecting antiseptic precautions in operating.

Dr. Gardner, in reply, said that Mr. Tait attributes much of his success to the avoidance of opium, as it tends to bring about adhesions by keeping bowels quiet, and also makes constipation more difficult to overcome. For symptoms we are accustomed to recognize as those of commencing peritonitis, viz., abdominal pain, tympanites and vomiting, he gives a saline cathartic and turpentine enemata of strength of one teaspoonful to 4 ozs. soap and water. Tait insists on absence of all fluids from the diet for 24 to 36 hours. Muller washes out abdomen in peritonitis with ¾ per cent. solution of common salt. One secret of Tait's success was doubtless the wonderful rapidity of operating and the consequent short anæsthesia, the use of drainage-tube to avoid delay in case of hemorrhage, frequent washing out during operation in case of hemorrhage and to remove the contents of burst cysts, and also to his after-treatment. He did not agree with Tait as regards this avoiding the use of the nail-brush and the use of unboiled water.

Dr. Hingston mentioned that recently, in the case of a burst cyst, he had, from urgency, been compelled to wash out the abdomen freely with common water from the tap. The patient had recovered without a bad symptom.

Progress of Science.

A SIMPLE METHOD FOR THE DIAGNOSIS OF ORGANIC VALVULAR DISEASES OF THE HEART.

By F. Peyre Porcher, M. D.

We will make no allusions in this paper to hypertrophy, dilatation, pericarditis, or other diseases of the organ.

It is almost needless to say that the first effort of one who is desirous of knowing whether the valves and orifices of the heart are diseased is, obviously, to notice if there be any *derangement*, *abberration*, or *change* from the *normal* sounds!

He takes care to listen at the *base* and at the *apex*, paying *separate* attention to each point respectively; and also to the condition of the right and left cavities—in order if he does discover any *morbid* sounds (a modification of the natural being always a morbid sound) that he may isolate and designate the derangement or lesion which such morbid sound surely indicates. It simplifies the process very much to know that for the greater number of endocardial lesions or injuries (it is needless to give the figures) are found in the *left* cavities. He should keep in mind also that the structure of the valves or curtains at the *base* of the heart (the semilunar or sigmoid valves of aorta and pulmonary artery) are analogous in shape, and act similarly and simultaneously. They are placed at their respective gateways with similar intent; they close and open, give ingress and egress to the column of blood synchronously. The same is true of those at the point or *apex* (the bicuspid or mitral, and tricuspid). These, placed between the left and right auricles and ventricles respectively,

differ essentially in form and structure from those at the base of the organ—but they resemble *each other* in their general shape; *they* also open and close simultaneously, and perform analogous functions with each other in the economy of the organ.

So, in making a diagnosis in the case of a heart supposed to be diseased, we address our examination to, and fix our mind upon these *two sets* of valves separately, to see if any of them are diseased, and if so, to note both what is the nature of the change which exists in their own structure, and what modifications have been produced by their alteration form upon the *orifice* which they close and open. This essential method of procedure (covered with the statement made above regarding the very marked *infrequency* of diseases of the right cavities) already greatly simplifies the study of the diseased valves. It is practiced even by the novice in such inquiries; and when one is seen examining the heart at random—regardless of the above rule—it is clear to the looker-on that he has not mastered the first horn-book lesson upon the subject, and that it is impossible for him to form any accurate conclusions. He may know that the organ is diseased, but he cannot tell where the injury is.

Besides this, whoever is desirous of investigating a case of heart disease, must have, in addition to his anatomical knowledge, fully and clearly in his mind, the whole action and reaction in the cavities of the organ during its systole and diastole; he must know when and where the current is flowing out, and when and where its passage is estopped—whether at the back-gates, or at the front-gates, and conversely. For it is when those muscular and tendinous strings and cords at the apex, or those semilunar curtains at the base, which open and shut these orifices, are defective, i. e., when they close imperfectly, are *deficient*—("*insufficiency*")—and permit regurgitation when they should not; or when by fibrinous or other deposits upon the valves the orifices are *narrowed or roughened* ("stenosis"), and thus *obstruct* the forward flow, and give rise to abnormal, morbid sounds; it is the consideration and explanation of this problem which is his object in every case which becomes the subject of critical inquiry.

It is essential then that besides a full appreciation of the currents and checks in the incessant working of the organ—the onward flow and the movements of the fleshy barriers which suddenly and rythmically arrest the flow—he should first *know* the normal *healthy* sounds in order to detect the slightest *deviation* from them; and he should localize these deviations, for they are necessarily *morbid* sounds and *indicate diseased valves.*

It being necessary, then, for the observer to know the cause and rationale of the normal sounds, we will state them. It is pretty well agreed that the first sound (represented by the word "lubb") is synchronous with the *systole* of the organ, and is owing to one or all of three causes, viz.: the contraction of the muscular ventricals, the sudden closure of the auriculo-ventricular valves which prevents the blood from regurgitating into either auricle, and the impulsion of the heart against the walls of the chest. At this moment a column of blood is driven forcibly through the aorta and pulmonary artery, and the auricles are silently filling with blood from the valveless venæ cavæ and from the pulmonary veins.

That the second sound (represented by the word "dup") is synchronous with the *diastole* of the organ, and is due to the shutting up of the aortic and pulmonary artery semilunar valves.

The closure of these valves at this moment prevents the regurgitation of the blood from the aorta and pulmonary artery into the ventricles, when during the diastole of the ventricles these valves are being filled from the auricles.

During the prolonged interval of rest following (which is equal in duration to the first and twice the length of the second sound), we may suppose that the auricles are still silently pouring their contents into the ventricles, the portals of which are now wide open. During this period of apparent calm the heart endowed with a high degree of nervous energy derived from the cardiac ganglia of the sympathetic and the pneumogastric, wound round and enwrapped with bundles of concentrically interlaced muscular fibres, layer upon layer, as if encased with triple steel, and indeed the very "cunningest pattern of excelling nature" as respects endurance, strength and force, is preparing, like a wild animal gathering for its spring, for the next systolic paroxysm, when its contents will be forced into the delicate meshes of the lungs and be driven through the finest capillary tubes in the remotest tissues of the organism.

We will confine our attention at present, whilst attempting to describe the *morbid* sounds and the lesions they indicate, to what takes place in the left cavities, for whatever is true of the left is true of the right, so far as the circulation of the blood is concerned, and we will simplify matters much by so doing.

Now with the first sound (systolic) the blood is being driven through the opened aortic orifice at which moment the back-gate (the mitral or bicuspid) is shut. So, if we have a deranged or abnormal *first sound* heard with the greatest intensity at the *base* of the heart (and it is not a soft, inorganic, anæmic murmur, which is owing to the thinness of the blood, and which is out of the present question), there is necessarily a narrowing (stenosis) or roughness of the aortic orifice—an obstruction there by vegetations, atheroma, or other morbid condition preventing the natural flow of blood through the aortic orifice, and deranging or modifying the natural sound.

Hence a deranged first sound at the *base* of the heart indicates *narrowing* or obstruction *stenosis* in other words of the *aortic valves.*

But suppose this abnormal, morbid *first sound* has its greatest intensity at the *apex* of the heart. It must be owing to this fact that the back-gate

has a chink in it—it is more or less open, in place of being tightly closed as it should be ; the column of blood, instead of meeting with the normal resistance of the closed and perfect mitral valve (bicuspid), in order that it may be propelled through the aorta and reach the utmost boundaries of the tree of life—it is leaking back through the defective portals of the mitral—is regurgitating into the left auricle ; and it gives out to the ear placed over the apex a morbid murmur, or noise, more or less *prolonged*, in place of the ordinary normal first sound (represented by the word "lub"). The valve is necessarily defective as a flood-gate ; it is incapable of close shutting up ; that its mechanism has become defective is indisputable, and we pronounced positively upon the subject.

So a deranged first sound at the *apex* indicates *insufficiency* of the mitral valve, caused by vegetations, or other result of endocarditis.

We have now disposed of derangements of abnormalities (which are always *morbid*) of the first sound of the heart both at the base and apex. They indicate nothing else but what we have said they do.

Let us now proceed to pronounce upon derangements of the second sound (diastolic), should they be noticed either at base or apex: If the second sound is deranged, its greatest intensity or disturbance being at the *base* of the heart, it must necessarily indicate the exact opposite condition to that which we stated that derangements of the first sound indicated, for exactly the reversed condition of affairs is taking place ; the semilunar valves are shutting now, they were open then. The valves at the base are acting directly contrary to those at the point also ; when one set are shut the other set are open.* During the second sound we know the aortic valves are closing, in order to keep the blood temporarily from flowing backward into the left ventricle (which is a reservoir of supply). So if there is a morbid second sound (diastolic) at the base, the valves of the aorta are *insufficient*. The front gate has not closed tightly, there are vegetations, hardened *plaques* of fibrine, or bone, or cartilage, which interfere with integrity or pliancy of the delicate curtains which form this front floodgate ; and the column of blood in the aorta, instead of remaining quiescent for a moment, as it should and does do in a state of health, regurgitates into the dilating ventricle and gives a deranged, morbid second sound. Therefore a morbid *second sound* at the *base* indicates *insufficiency* of the aortic valves.

Now suppose the deranged, morbid second sound its seat of greatest intensity at the *apex*, instead has of being at the base, it is very plain then that the back gate, the mitral bicuspid orifice, is narrowed, obstructed (stenosis), and the blood in passing through makes a noise. Because during the second sound (diastolic,) the mitral orifice should be wide open to allow the blood from the auricle to enter noiselessly and fill up the ventricle, otherwise there would be no supply for the next systolic effort of the heart. If the orifice is obstructed or narrowed the blood does not pass through noiselessly as in a state of health ; the second sound is abnormal ; there is a murmur. A disturbed second sound at the *apex* indicates then *stenosis* of the mitral orifice.

Our table now is very easily constructed, and being based upon eminently natural and scientific foundations, namely, the physical laws of the heart's structure, functions and actions, it must serve as a ready method, enabling us, or anyone else—even the most uninstructed—to make a diagnosis of all the uncomplicated organic diseases of the valves at the orifices of all the chambers of the heart. As it is necessarily true and correct, and though it may not seem very simple, it requires no thought to apply it to any case before us ; nor is it necessary that we should at the time of applying it understand *why* it is correct:

The formula and the order of the words to be recalled are:

	Stenosis.	*Insufficiency.*
	Insufficiency.	*Stenosis.*

For example:

	A deranged 1st sound indicates *Stenosis* of the aortic or pulmonary artery valves.
At the base—	A deranged 2nd sound indicates *Insufficiency* of the aortic or pulmonary artery valves.
	A deranged 1st sound indicates *Insufficiency* of the bicuspid or of the tricuspid valves.
At the apex—	A deranged 2nd sound indicates *Stenosis* of the bicuspid or of the tricuspid valves.

All we have to do is to memorize these words in their order, as a formula, to elucidate at the bedside the valvular diseases of the heart. Observe what sounds are deranged at the base, then at the apex, and pronounce accordingly. Of course the known relative positions of the four valves must guide us in deciding which of the two valves at the base, or at the apex, the abnormal murmur proceeds from, so as to distingush between the valvular derangements of the right and left heart.

*—third well-known relation may very properly be stated here to complete the sketch of these antagonisms and contrasts. This regards the cavities of the organ. The ventricles and auricles are synergetic only with themselves, when the former are contracting the latter are dilating, and *vice versa*.

IRRITABLE BRAIN IN CHILDREN.

In the London Medical Press, August 11, 1886, Dr. William H. Day reports five cases of this affection, from the study of which he draws the following conclusions:

These cases are common enough in young children, though frequently overlooked at an early stage, when the symptoms might be subdued. The disease is sometimes seen in children who are

rickety, and in whom dentition is delayed. Excitable and nervous children are prone to the disorder. This irritable state of brain may follow moderate exposure to the sun and also to cold, the head never becoming hot nor the face flushed. A long exposure to the sun's rays, or a greater degree of cold, invite an active form of cerebral congestion. If the congestion be moderate and promptly attended to, and the child is of good constitution, the attack passes off gradually and the usual health soon returns. It is in the initial stage that threatening mischief may be averted. This irritable state of the brain is, in many cases, primarily one of anemia of the brain, as already stated, for the vital powers are first depressed and lowered. The brain is imperfectly nourished. It ceases to respond. It has lost its tone. The little patient has pains in the head; his pupils are contracted, and he shuns the light; he is disturbed by dreams, and sleep is unrefreshing. The irritability persists until the congestive stage is reached, when it vanishes altogether, or is supplanted by lethargy and indifference. The distribution of blood through the brain in life is not uniform; some parts are more abundantly supplied than others; hence we come to understand why cerebral hemorrhage is common to certain situations, and softening of the brain in the adult from partial anemia in other parts, when the proper blood-supply is obstructed and the circulation is disturbed. In young children the peculiarities of the cerebral circulation are more noticeable, and by reason of the fact that ossification of the skull is incomplete and the fontannelles are open and elastic, the amount of blood within the cranium is subject to great variation. Partial anemia of certain parts of the brain, followed by local congestion of other parts, may possibly explain some of the symptoms I have described, and the influence which the circulation must have upon the functions of the brain.

Congestion of the brain in early life very frequently succeeds the stage of irritation, if it does not usually accompany it in a greater or lesser degree. This arises from the readiness with which the brain circulation is disturbed. Young children in good health, who go too long without food, or do not obtain sufficient sleep, get wayward, fretful, and exhausted. When food and rest are obtained, the symptoms subside, and, the circulation being strengthened, they pass away. This is a state of irritation, and exhaustion is its chief cause.

The *diagnosis* in cases of irritable brain is rarely difficult. Failing health, caprice of manner, fits of ill temper, lassitude, pallor, loss of appetite, and unrefreshing sleep are among the earliest and characteristic signs. But even these symptoms may mean little in a young child, as they are common to many slight ailments, and quickly pass away. At the same time we cannot be too watchful, as there is an ever-threatening danger while the brain is in active growth and development. As the disorder steals on, sleep becomes disturbed, and the cheeks occasionally flush. With these symptoms there may be no elevation of temperature, and no acceleration of the pulse, for the nervous system has not yet transmitted any disquieting influence to the circulation. A considerable time may elapse before we know there is any headache, for the child may be too young to express its sensations; but if the hand is frequently raised to the head while it rolls from side to side on the pillow, we may be tolerably certain that it is uneasy and painful.

In typical cases of congestion of the brain in children there are, in addition to the symptoms I have enumerated, severe headache and often vomiting. Sometimes there is much oppression, lividity of the face, and a tendency to heavy sleep, hence the similarity to meningitis in its later stages. Usually, however, the two affections run a different course. In simple congestion, if the constitution is good and no convulsions occur, the fever is slight and the attack passes off in a few days. This is not the rule in meningitis.

If we turn to the temperature as a means of diagnosis, it is worthless if not taken in connection with other signs. The temperature in fatal cases of meningitis may not reach the height it does in simple irritation, but it generally does, and at the time of death is much higher. In the fifth case the temperature ran up to 104°, and yet the constitutional symptoms were nothing like so severe as in the first, second, and fourth cases. The temperature is exceedingly mobile in children of nervous temperature, rising and falling with extraordinary rapidity on very slight provocation.

In long standing examples of cerebral congestion and disturbance, vascular changes may be expected to occur in the optic disks. Active congestion is such a near approach to inflammation that the line of demarkation can hardly be drawn. The two conditions are generally blended, a minor degree of inflammation being mixed up with, or superadded to, the cases of irritable brain and congestion. It is in cases of purely irritable brain that ophthalmoscopic changes are generally absent, and according in nearly all the cases I have related none were found. Too great importance should not be attached to any ophthalmoscopic appearances that may be present in the cases I have been describing. We have seen that no optic changes were noticed in the cases that were *irritable* rather than *congestive*. As these are often absent in simple meningitis, and sometimes in the tubercular variety, even when it occurs, as it generally does, at the base of the brain, I think caution is needed before coming to a hasty conclusion.

Treatment. A favorable result depends in a great measure on meeting the symptoms with promptitude at the outbreak, when there are only slight headache, alteration of manner, and disturbed sleep to guide us in that early stage, when it is impossible to say what is the essential cause of the trouble, what is its exact nature, and what is its probable termination.

Rest, in these cases of irritable brain, is to be

strictly observed, since it checks the overexpenditure of nerve force by conducing to repose and sleep. The brain being sensitive, exhausted, and easily fatigued, absolute rest is as much needed for its recovery as it is for a broken limb or a dislocated joint. This simple precaution is seldom sufficiently insisted upon until it is too late. Strong light, noises in the room, and the presence of anxious friends tend to excite these young patients. Through the medium of the nervous system the circulation becomes disturbed. Physiological rest tranquillizes the circulation, allays excitement, and favors recovery.

If the head is hot (and this belongs to the *congestive* rather than to the irritative class) a cold lotion or ice-water rags may be applied to it. Cold continually applied to the head will often induce tranquillity and sleep, when bromide and chloral fail. Cold soothes the patient. If we dread the approach of meningitis, henbane, and even small doses of morphia in combination with hydrate of chloral, will prove of the utmost benefit in the early stages.

An aperient will generally be demanded. A grain of calomel, followed by a little syrup of senna, or by a few grains of sulphate of magnesia and nitrate of potash, will answer well if the strength is good and there is any heat of head. After this some bromide of potassium, with small doses of the iodide or hydrate of chloral, according to circumstances, should be given regularly. When the symptoms of cerebral congestion predominate the bowels can scarcely be kept too open, and if there be arterial tension aconite in combination with the bromide will tend to reduce it and calm the excited brain at the same time.

The feeding of these cases is important. It should be nourishing from the first, and in the absence of vomiting (which we have noticed in all the cases) milk and beef-tea are to be freely given. Food from the first, in a nourishing and readily assimilable form, should be given.

THE VALUE OF EXTERNAL APPLICATIONS IN THE TREATMENT OF CHILDREN—EFFECTS OF COLD WATER.

When one hand is immersed in cold water the temperature of the other hand also falls. Cold not only cools the surface of the body but affects markedly the condition of internal organs through the nervous system, especially in children.

Brown-Séquard has shown, by experiment, that cold applied to the lumbar region contracts the arterioles of the kidney, and consequently diminishes the blood supply to those organs. When cold water is applied to the surface of the body the *cutis anserina* immediately becomes manifest, the skin paler, the respiration is sobbing, and the pulse is becomes quickened. If the temperature be not too the low condition of reaction soon supervenes. The coldness is succeeded by a feeling of warmth, and the depression by a feeling of exhilaration. The bath should not be continued too long for this *tonic* effect.

If the tonic effect is well shown the circulation is equalized and invigorated, tissue metamorphoses take place more rapidly; and with the increased tissue changes and activity of assimilation the appetite is increased and the body gains weight and strength.

The cold bath should have a temperature of from 40° to 70° F.

Wet-Pack. This is occasionally an efficient way of applying cold water. A large towel may be wrung out of cold water and wrapped about the little patient, and covered with a blanket. The sense ofchilliness at first experienced is soon followed by an exhilarating glow.

When reaction is well established, the pack should be removed and the body vigorously rubbed with dry towels. Unless active diaphoresis be the object, the application of the wet pack should not continue more than fifteen minutes. If the little patient be enveloped with the wet sheet, standing and rubbed vigorously with the sheet, reaction will be more quickly induced.

When the pack is removed the patient should be vigorously rubbed with coarse towels.

The douche is where the water is poured from a height upon the patient. This means is rarely available in the treatment of children.

The external applications of cold water in the treatment of the diseases of children are many, and some of them very important,

In tonsillitis, diphtheria, and croup, the cold-pack applied to the neck will oftentimes give great relief. In laryngismus stridulus, the application of cold water in this way will sometimes quickly relieve the distress in breathing.

For spasm of the glottis, Morell Mackenzie recommends that while the child's body is placed in a warm bath, that cold water be dashed in the face.

In the first stage of laryngo-tracheal diphtheria, among other means, the same authority recommends that an ice-bag be applied to the throat.

One of the most important uses of cold water is in fevers, for its antipyretic effects.

Zeimssen's method, by placing the patient in a tepid bath, and gradually cooling the water, by the addition of ice, to the required temperature, which may be 60° F., or even 40° F., according to the height of the pyrexia and the rapidity of its descent, may be sometimes available in treating children. The bath may be used from one to six times a day, and continue each time until the temperature is brought down to the required limit.

In the treatment of children's diseases the wet-pack is, however, generally preferable, on account of the ease with which it is applied. The little patient may be put in the pack several times a day, and remain from five minutes to an hour. Hyperpyrexia often kills. The deplorable determination may sometimes be averted by the cold bath; and it

is in these cases that its remarkable effects are most conspicuously shown. In scarlatina, for instance, when the temperature rises to 105° or 106° and there are alarming symptoms, the cold wet-pack will prove of very efficient service. Most families have a prejudice against the application of cold water, especially in the eruptive diseases. It will, therefore, be necessary, usually to use that means least likely to frighten the patient and meet with opposition on the part of the family.

Trousseau, in the treatment of these cases with a high temperature, was in the habit of placing the patient in bath-tub, and directing that three or four pailfuls of water be dashed over him every one-fourth minute to one minute, after which he was put in bed, and covered with the bed-clothes, without being dried. The physician in private practice who should try this "dashing" process, would in most cases find himself unceremoniously dashed out of the house.

Zeimssen's method might be used in some cases; but the cold-pack or cool sponging will usually meet with less opposition and will be found very effectual.

J. Lewis Smith says that in most cases he prefers to reduce the temperature by the constant application to the head of a rubber bag containing ice. The bag should be one-third full, so that it may fit over the head like a cap.

If the temperature is above 104°, he makes a similar application over the neck at the same time, which not only abstracts heat, but diminishes the pharyngitis, adenitis and cellulitis.

A Jacobi, in an article on "Typhoid Fever in the Young," says: "To reduce high temperatures quinia has been frequently recommended, though it has not served me well in infectious diseases." I will add that I have found quinine not only useless in these cases, but under certain conditions, even with a high temperature, exceedingly dangerous. A rational empiricism is safer in the treatment of children than a blind adherence to scientific theories."

"The best antipyretic is cold."

"No cold bath for cold extremities; no more cold bath, when once after it the extremities remain cold or cool. In these cases the surface becomes colder than before, it is true; the interior, however, is warmer than it was."

"Warming-pans ought always to be used to the feet and legs when cold is to be applied."

In a very full and interesting article, William Perry Watson, after speaking of the various ways already mentioned of applying cold water, directly or indirectly, speaks of a rubber cot which he uses, made of rubber tubing and sheet-lead, which may be folded about the little patient.

In acute cerebral congestion, cold water may be applied to the head while the feet and legs are immersed in warm water, or covered with mustard and flaxseed poultices.

Cold to the spine is one of the most effective remedies in some cases of chorea. It is most conveniently applied, perhaps in the form of an ether spray.

In infantile convulsions cold may be applied to the head, while the body is immersed in warm water.

In my experience, weekly cachectic children are best treated by the application of the morning cold bath followed by vigourous rubbing; and I believe it to possess more beneficial results, in most cases, than any system of medication without the external application. I have used it for several years in these cases with the happiest results. I am in the habit of prescribing at the same time small doses of Fowler's solution, as an aid to digestion and assimilation in these cases. This treatment should be continued for some length of time, if there are no contra-indications; the effect of two or three applications will be hardly noticeable. It is well to begin by using tepid water, and have it a little cooler at each succeeding application until a temperature of about 60° F., is reached. It is well to put a little salt in the bath

Under the treatment indicated these cases will sometimes improve with astonishing rapidity; the weight will increase, the appetite become better, the color return to lips and cheeks, and the irritative cough, so common in such cases, cease.

Dr. Forchheimer, in speaking of the treatment of rachitis, says: "I rely upon these baths (salt and cold water) and upon fresh air as the main agents for curing this disease."

Warm and hot water. What is the effect when the body is immersed in warm water? It causes at first a pleasant sensation; the skin becomes red, the pulse increases in rapidity, but the tension is less, and a sense of giddiness and depression is soon experienced. Extreme muscular weakness supervenes if the bath be prolonged. Transpiration from the skin is increased. The temperature of the body rises. There is rapid disintegration of tissue. The warm bath should have a temperature of from 90° to 100° F., and the bath from 100° to 106° F.

It is not necessary to speak of the various ways of applying warm and hot water, the Turkish or Russian bath, the hot-pack, etc.

Extremely hot water is similar in its immediate effects to cold. The same remarks that were made in regard to the application of cold water to the neck in laryngismus stridulus, etc., may be applied to hot water.

In acute desquamative nephritis, warm fomentations may be applied to the back with good effects.

Wakefulness or restlessness of children may often be overcome by a warm bath taken just before bed-time.

In various diseases, as meningtis, cerebro spinal meningitis or threatened convulsions, the body may be immersed in warm water, or flannels wrung in mustard-water may be applied to the feet and legs with the happiest results.

I have again and again seen this simple means

followed by quiet and sleep, after bromide of potash—the child's opium—in large doses has been without effect.

Where there is congestion of the brain from any cause and a warm bath is required, the physician should see to the temperature of the water himself; for if it be too hot, it may defeat the end in view, and instead of relieving the engorged vessels the shock of the too warm water on the cutaneous nerves may cause a rupture of blood-vessels, a gush of blood may be from the nose, or sudden dilatation of one pupil, and sudden death; a very unpleasant result, one which I have known to happen, and which is likely to bring a valuable means of relief and cure into disrepute.

Flannels wrung from warm water and covered with dry flannels or oiled silk, make one of the neatest and best applications that can be made to the chest in pneumonitis or catarrhal bronchitis.

In treating pneumonia in children, L. Emmet Holt says he has little faith in drugs, and summarizes the treatment which he would recommend in these words : "Nourishment, opium, alcohol, local applications."

After tonsillitis has continued until abscess is almost certain, Morell Mackenzie advises the persistent application of warm poultices to the neck to encourage suppuration. I am satisfied that the persistent application of hot fomentations—preferably flannels wrung from simple hot water—from the start may hasten resolution and prevent abscess.

In entro-colitis, gastro-enteritis and the various inflammatory affections of the abdominal organs, heat is always indicated; and there is no doubt that in these applications, properly applied, the physician has a more potent, reliable, and easily controllable agent than in any remedy or class of remedies which may be administered *per os*.

Winckel says that permanent baths are indicated for those *children who are extremely feeble between twenty-three and thirty-six weeks of age*, and with those who are in a state of profound *asphyxia* in consequence of hemorrhage from the cord after *accouchement*.

He had a bath especially constructed, in which a child could be comfortably kept constantly for several days in succession in water at a temperature of 97° to 100° F.

Henry N. Read, Assistant Physician, Long Island College Hospital, in speaking of ephemeral high temperature in young children, after quoting Bouchut—who says in his work on Diseases of Children, "in the first stage of childhood there is no relation between the intensity of the symptoms and the extent of the material lesions"—writes "that the most intense fever, restlessness, and spasmodic movements, etc., may disappear in twenty-four hours, leaving no traces. The pulse and respiration may become extremely rapid, and the temperature run up to 105° or more." In these cases we can only explain the phenomena, as Dr. Read does, by the insufficient regulating power of the nervous system. The nervous system no doubt plays an important part in the regulation of the body heat, although its action and exact influence is ill understood. In these cases I should put great faith in the sedative action of the tepid or warm bath. Dr. Read recommends the administration of chloral hydrate; Da Costa and Wilson, of Philadelphia, speak well of the same treatment.

Poultices. Some of the applications already spoken of might come under this head; in fact there is no better application, where simple heat and moisture are desired, the flannels wrung from hot water and covered with dry flannel or oiled silk. Spongiopilline may be used in place of the flannel, or a layer of cotton batting covered with oiled silk makes a light and neat poultice, which may be left in place for several days. If it be desirable to produce a little cutaneous irritation in the case of children, a spice-poultice makes a light and convenient poultice. It is well to mix the white of an egg and a little glycerine with the spices to prevent them from becoming dry too soon. I prefer in most cases an ordinary flax-seed-meal poultice to which a little mustard has been added. If it be desirable to keep the poultice moist as long as possible, a little glycerine may be mixed with it.

The physician should always either give minute instructions in regard to making and applying any poultice ordered, or, better, see to it himself—as a poultice, unless properly made and applied, may do more harm than good.

A hop poultice is popular, but probably owes its good effects simply to the heat and moisture.

If the chest be covered with flannel and oiled silk in every case of measels, many lung complications might be avoided, says J. Lewis Smith.

Poultices should not be continued too long; for if kept too long in conact with a large surface they depress the vigour of the system, and lower the tone, so that recovery may be prolonged.

They, also, if kept in place too long, cause little abscesses which are very irritating.

Inunctions. Inunctions of fat are useful in most fevers, especially in scarlet fever, to relieve the dry condition of the skin. Cocoa butter is the best, perhaps, but lard or olive oil may be used.

Colbat advocates the use of inunctions of lard or vaseline, not only in scarlatina, but in variola, pneumonia, etc. His experience has been that the inunction is always followed by a period of calm and repose, and with a reduction of the body temperature from one half to two degrees.

I shall not speak of the various medicinal agents that may be put into the circulation by means of inunction, such as mercurials, cod-liver oil, etc. Neither have I spoken of the medicinal agents that may be absorbed from baths or vapors.

I will mention one means, however, which is very little used, and which is of great benefit in treating weakly children, who are sallow, and have pasty, whitish stools; and that is by general baths with a solution of nitro-muriatic acid one ounce to gallon.

Counter-irritants. In speaking of mustard, etc., in poultices, I have already mentioned some forms of counter-irritation. There are a few others that the physician who is called upon to treat children should bear in mind.

H. C. Wood strongly recommends the oil of amber as being especially valuable as a counter-irritant in the treatment of the *bronchitis* of young children, associated, as it often is, with marked nervous disturbance and tendency to collapse. The oil, diluted with from one to three parts of sweet oil, and applied to the chest as a sort of stupe, sometimes acts very happily in allaying nervousness as well as internal congestion.

For pertussis, among the thousand and one remedies, John M. Keating speaks well of counter-irrtation as an important measure, and mentions croton oil, oil of amber, and oil of cloves, which may be mixed with olive oil, and rubbed on the chest three times a day, and the surface afterward covered with oiled silk. J. Lewis Smith also advises mild counter-irritation in pertussis. The same authority advises counter-irritation along the spine and nucha, after discontinuance of ice-bags in cerebro-spinal meningitis.

Dr. Faulkner, of Pittsburgh, advises as an efficient means of treatment in many cases of asthma, counter-irritation over both pneumogastrics with Churchill's tincture of iodine.

In tetanus infantum, Dr. Merriwether, of Alabama, says, if there is no improvement from the medicine which he orders, he applies a blister larger than a dollar, to the umbilicus, and with this treatment the child generally improves. Warm foot-baths and stimulating embrocations along the spine are proper adjuvants to the treatment. Trousseau sometimes used blisters to the legs in scarlatina dropsy with good effect in conjunction with hydragogue cathartics. Blisters are very seldom required in treating children, especially in the case of young or weakly children they should be used with extreme caution.—*Dr. F. H. Knickerbocker, in Archives of Pediatrics.*

BISMUTH SUBNITRATE IN BURNS.

By A. M. Cartledge, M. D.

Professor of the Principles and Practice of Surgery, and Clinical Surgery, in the Hospital College of Medicine, Louisville.

Burns are among the most troublesome injuries the surgeon is called to attend. He has to exercise a degree of patience only equalled by the **victim's** pain. Nearly all the usual methods of treating burns locally are decidedly inefficient. About the only true principle advanced for centuries was, that air should be excluded from the burnt surface, and this no doubt was the suggestion of some suffering patient.

It is the usual custom in burns of the second, third, and fourth degree (and these constitute the largest class, and the varieties especially alluded to in this paper) to immediately smear the parts with some substance, as flour, starch, or white lead. These dressings, by excluding air from the exposed nerve terminals, fulfill one indication of treatment, but in others utterly fail, and later do much harm. Suppuration occurs often as a result of the decomposition of the vegetable substances, and this together with the impediment to drainage favors very materially septic absorption.

In burns of much extent it becomes necessary to remove such dressings as early as the third day to prevent serious systemis symptoms; and now the real trouble comes. The pain inflicted in removing such **a** dressing, provided the burn is extensive, is simply appalling. I have observed it attended by not inconsiderable shock, even where the most careful precautions by way of soaking was practiced. It is generally customary after removing such a dressing as has been described to apply some oleaginous dressing either the old carron oil—linseed oil and lime water equal parts, or the more modern carbolized oil. Some have discarded the various powders and pastes and resort primarly to the carbolized oil.

This last has been my practice until recently. But the carbolized oil does not meet all the indications of treatment, and is I think much inferior either as a primary or secondary dressing to the subnitrate of bismuth. The principles involved in the treatment of burns does not materially differ from that in other open wounds. The application of principals in practice are somewhat modified by the peculiarities of the injury. The application of antiseptic methods to burns of great superficial extent is attended with considerable difficulty. However, patience and care with an anesthetic, ifnecessary, will accomplish much in this way.

The ideal dressing for a burn is the one that is thoroughly protective, hence comfortable, and one that can remain longest, viz., antiseptic. I think in the present state of our knowledge bismuth and absorbent cotton is the nearest approach to such a dressing.

Mode of application.—The parts should be as perfectly cleansed as possible with warm carbolized water on listerine. I usually puncture any large vesications in second degree burns. Then if the burn be small superficial extent powder it over with bismuth, over this a good thick layer of absorbent cotton, and over all a bandage. If the injury covers considerable extent, so as to render the too free use of bismuth dangerous, make a solution in water of the bismuth and paint it over the part. This last permits of a uniform distribution of a minimum quantity. I have used this dressing in several cases of burn, and in one extensive scald of the leg, second and third degree, and so far have not witnessed any evidence of bismuth poisoning.

The results have been very satisfactory, in two or three cases scarcely any suppuration occurring. I have not used it in burns involving as much as one-fourth of the surface of the body, but think with care it may be used safely. A dressing of this kind promotes to the greatest degree healing by

scabbing, which is the method to be desired in burns. After removing the cotton, because of suppuration it may be, it is not necessary to remove the bismuth scab entirely, but cleanse any point of suppuration and powder a little bismuth on, then reapply fresh cotton. This method saves the surgeon much labor, the patient much pain, and does much to save life from septic absorption and suppurative exhaustion. Finally by promoting healing by scabbing instead of by granulation, it will do much to lessen subsequent contraction in burn cicatrices.—*Progress, Louisville, Ky.*

WEANING.

This important process has called forth the most careful thought on the part of such eminent men as Trousseau, Archambault, and Julius Simon, and others. If it is done prematurely, suddenly or at an unseasonable period of the year, one may expect as a result diarrhœa, gastro-enteritis, or cholera infantum, this result being due to the irritation which is causd to the organs which are accustomed to and adapted to the digestion of human milk. If an acute affectionis produced, the symptoms are indigestion, diarrhœa, and vomiting, which may come on in repeated attacks and may quickly prove fatal. Acute gastro-enteritis sometimes takes the form of cholera infantum. Instead of the acute form there may be a sub-acute or a chronic one, the belly becomes enlarged and the stomach dilated and rachitis with its well known phenomena may intervene. In other cases the skin, the mucous membranes, and the lymphatic glands may be involved, and scrofula appear as the result of improper weaning. Two questions are to be considered in connection with this subject: (1) When (that is, at what age) should weaning take place; (2) how should it be done? Of decided importance, also, is a consideration as to the time of the year when this may best be accomplished. The summer is the least desirable season for it, for reasons which will at once occur. The most favorable is the winter, and then, in turn, the spring and the autumn. As to the proper age for weaning Trousseau made the mistake of laying down the general rule that it should be accomplished when the child had cut his sixteen teeth, whatever might be his age. But if a child has been nursed at the breast he will have his teeth when he is twelve or fifteen months of age; while, if he has been nourished in part at the breast and in part by the bottle, the first dentition will not be finished until he is two years or two and a quarter years of age. As to the disturbances which Trousseau attributed to dentition, or to weaning in the interval between the eruption of two groups of teeth, it is believed that they have been exaggerated. The age of eighteen months is considered as a good average for the period of weaning, modifying circumstances occasionally requiring an earlier time, but more frequently a later one. Should weaning be attempted earlier than the twelfth month, it will be attended with danger to the child's life, and this attempt is in reality responsible for the great mortality among infants. When artificial nourishment must be adopted, milk alone should be used, and the author protests against the soups, panadas, and other more or less indigestible substances which are given to infants from four to six months of age under the pretext of preparing them for weaning. He considers that the advice of Trousseau and others upon this point has done great harm.

How are children to be weaned? If the child has reached the age of twenty months the question is easily answered. If he persists in wanting the breast, having already been fed, in part, upon milk, eggs, and other easily digested food, the nipple and the surrounding surface may be smeared with some saline or bitter substance, and this will speedily produce the desired result. Should weaning occur between the ages of twelve and fifteen months the difficulties will be greater, for diarrhœa, athrepsia, and rachitis are among the possible results. Milk should still form the basis of the child's diet, and this should continue for several months, soft-boiled eggs and light gruels being added. When the child must be weaned under the age of twelve months, the greatest care must be taken, mother's milk should be very gradually replaced by cow's milk or better by asses's milk. Should cow's milk be given, it must be heated over a water bath and fed from a cup—not from a spoon or a bottle. Any food excepting milk must be considered positively dangerous for children under the age of twelve months. Meat, vegetables, and other substances, has been which are fit only for strong stomachs, must be withheld for months after the breast has been entirely abandoned. Wine, coffee, beer, and cider must also be entirely withheld from young children.—*Archives of Pediatrics.*

INSOMNIA IN THE AGED.

D. C. L. Dana (New York Bulletin of Clin. Soc.) has found the information contained in the text-books upon insomnia in the aged to be but very slight in amount. Insomnia was not frequent in the aged, but when it was present it was sometimes very intractable. In his experience iron did not relieve the anemia of the aged so as to produce sleep. Alcohol with food is another remedy, and many recommended hot gruel with alcohol before going to bed. While alcohol will relieve some cases, there are others in which the insomnia was increased. The bromides and chloral, even when given in enormous doses, often failed to give relief. Opium was another remedy. Good results have been obtained with a combination of cannabis indica and codeia; from five to six minims of the fluid extract of cannabis indica with one-sixth to one-eight of a grain of codeia might be used. One-forth of a grain of the extract of cannabis taken alone sometimes might

be effective. As a rule, however, the combination with codeia was preferable. Hyoscyamine was sometimes useful, but in nervous fidgety persons it would sometimes produce an actual delirium. Under ordinary circumstances the dose should not be increased above one-fourteenth of a grain to obtain the desired effect. The effect of these remedies, he thought, had been increased by addition of from two to three drops of tincture of aconite two or three times a day to relieve the tension of the blood vessels. Tincture of valerain and compound spirits of lavender sometimes acted like a charm in relieving insomnia. Large doses (℈i–3 i) lupulin were also often effective.—*New England Medical Monthly.*

WINTER INDIGESTION.

In an opening address, delivered before the Section of Medicine at the Brighton meeting of the British Medical Association, Dr. W. H. Broadhent spoke as follows on the topic above indicated:

As cold and damp weather sets in, there are many persons who begin to suffer from pain after eating, and flatulence; or these symptoms may not set in until later in the winter, when the cold and short days have reduced the vital powers. Very frequently the connection between the indigestion and the season of the year is not recognized, and the subjects of it simply look upon themselves as liable to dyspepsia, which they associate with certain articles of diet instead of with the winter, or attribute it to want of exercise and fresh air. As is well known, however, cold, and especially cold with damp, will inhibit digestion, sometimes so completely that a hearty meal, eaten with avidity after a cold drive, will be vomited almost unchanged hours afterward; but this takes place more frequently in a minor degree, sufficiently to give rise to discomfort, and a sense of distention, or the cold will inhibit the hepatic functions, and cause constipation.

Now in all such cases it is not the food which disagrees with the stomach, but the stomach which disagrees with the food; and the appropriate treatment is not levelling down the nourishment to the digestive capacity of the stomach, but the bringing up of the functional energy of the stomach to the requirements of digestion, by extra food of a stimulating character, such as beef tea, or an egg-flip, between meals, by stimulants at meals, and by tonics. So with regard to winter indigestion, winter is not the time for cutting off food, when it is required in larger amount to neutralize the influence of external cold. What is wanted is protection from the depressing influence of cold, or the means of neutralizing it.

It is quite true that most people eat far too much, and, again, that with regard to the stomach, as well as to all other organs and parts of the body, the principle of functional rest is of primary importance in dealing with disease; and restriction of food, and even temporary starvation, is often necessary; but we must distinguish, and not starve those who are suffering from inadequate nourishment, or employ treatment for catarrh, or ulcer, or organic disease, when nothing of the kind is present.

BILIOUSNESS.

What is commonly known as an acute bilious attack is more properly an acute indigestion.

The treatment of biliousness is prophylactic, alimentary and medicinal. Prophylaxia is concerned with avoidance of all the known causes, whether of a toxic, malarial, or alimentary character. A plain diet of bread, milk, oatmeal, vegetables and fruit, with lean meat or fresh fish in moderation, and abstinence from alcoholic stimulants seems to be the ideal fare for the biliously predisposed. This kind of diet is especially applicable for hot weather when albuminoids are apt to clog the portal system, and pastries are an abomination, and when a broiled schrode, a little chicken or mutton broth with bread and stewed fruit will make a more healthful meal than the more sumptuous fare of a modern fashionable dining saloon.

Exercise in the open air is of recognized utility in promoting oxidation and elimination, enhancing the digestive and assimilative processes, and lightening the burdens of the liver. Moreover, exercise (whether by rowing, horseback riding, gardening, walking,) hinders absorption of bile by the hepatic venous radicals, and promotes the passage of that fluid into the duodenum, through the increased compression exerted on the liver by the diaphragm and abdominal muscles; this is in accordance with a recognized physiological law.

The victim of an acute bilious attack will generally get righted in a few days by, first abstinence from all food, then a diet of porridge and milk, or skimmed milk alone, and a very gradual return to solid food, which for several days should be restricted to toast, a little lean meat or broiled fish, with some succulent vegetables, or ripe fruit. As for medicines, saline aperients, such as sulphate of soda, Epsom or Rochelle salts in full doses in the morning, or the now fashionable tumblerful of Hunyadi Janos will generally suffice to clear the *primæ viæ;* the latter has especially a reputation for evacuating bile. The striking relief obtained by free bilious evacuation has often been remarked, and the veteran transgressor resorts to his blue pill or podophyllin with every recurrence of his malady. Of late euonymin has come much into use as a cholagogue.

Harley recommends to persons who seem to have a more than usual tendency to biliousness traceable to sluggish biliary secretion, and where there seems also to be defective nerve action, small doses of nux vomica or strychnia after their meals. This may be combined with belladonna and aloes as in the aloin, strychnia, and belladonna

pill. The bilious person is generally constipated, hence such a pill has a special utility. Fothergill's pill of ipecac, capiscum, and pil. aloes et myrrh, has done good service in such cases. Nitro-muriatic acid and taraxacum have a reputation which is probably not altogether built on imaginary results. But bilious dyspeptics, while they should be attentive to the functions' of eliminations (and doubtless the ancient predilection for purgatives has been justified by modern scientific research which finds in intestinal septicæmias and alkaloids of putrefaction many of the evils formerly attributed to peccant humors and atrabilitary disorders) should aim especially to be good hygienists and learn to live right; but this is counsel which everybody gives and nobody takes.—*Boston Med. and Surg. Jour.*

THE DIETETICS OF PULMONARY PHTHISIS.

By Alfred L. Loomis, M.D., etc.

The dietetics of pulmonary phthisis is often the most difficult as well as the most important element in its successful management.

In the limited space at my disposal I can give only general rules and an outline of the practice which experience has led me to adopt.

Three things require consideration:

1st.—*The most sutiable articles of food.*

2d.—*The time and quantity of its administration.*

3d.—*The use of artificial digestion.*

Since the object sought is the maintenance of the highest possible nutrition, and as this must often be done with feeble digestive and assimilative powers, the selection of food will not be determined solely by their relative value (chemically) as food products, but quite as much by the facility with which they are assimilated.

The best foods are those from which the system gains the most heat and force producing elements with the least proportionate expenditure of digestive and assimilative force.

Milk is undoubtedly the best food of all *per se*. but in many cases with weak digestive power more nutrition is gained from its weaker ally Kumyss.

Of the albuminoids, meats, especially beef, and eggs are the most valuable.

The best hydrocarbons are cod liver oil, butter, cream, and the animal fats. Sugars and starches should be avoided as far as possible, since they tend to fermentation, and cause both gastric and intestinal dyspepsia. Only occasionally will a patient be found who is benefited by their use. They should be employed therefore only for variety in diet and to avoid that disgust for all food so apt to be engendered by a monotonous diet.

Phosphorous, so important especially in tubercular cases, is secured in preparations of the phosphates, which should not be in the form of syrups. Vegetables and fruits may be required in the earlier stages to avoid monotony, and later to satisfy a capricious appetite, but they should be restricted to the minimum and to such as contain the least saccharine elements.

Two very distinct classes of phthisical patients must be recognized, those under thirty and those over forty. It may be stated as a general rule that for the first class the basis of all dietetic treatment must be the hydrocarbons and phosphates. They are often *the curative* agents in young subjects.

On the other hand the albuminoids must constitute the principal food of the second class. It is worthy of note that often in phthisis the demands of waste and repair not only enable young people, who usually object to all forms of fat, to take and assimilate, but even cause them to exhibit a decided fondness for all forms of fatty food. Older subjects who in health use little albuminous food and more fat are able to digest large amounts of meat, while fats cause intestinal dyspepsia.

In selecting special articles of diet for these two classes it is important to remember that there are distinct stages which consumptive patients pass through as regards their digestive powers. The first covers the period during which digestion and appetite are unaffected. The second begins with the first indications of septic infection; is marked by intermittent pyrexia and gastric irritability. It extends to the time at which the stomach refuses solid food. The third covers the remainder of the patient's life. It is in the first stage that the best results are obtained.

Systematic dieting should be begun, therefore, upon the first suspicion of a developing phthisis. The diet can no longer be indiscriminate, but the rules given below should be strictly adhered to. For young patients meat must be and butter and cream are to be used freely. Milk should constitute the principal drink, in quantities of from two to four quarts per day. Other articles are to be taken sparingly simply to avoid monotony. Each meal is to be supplemented by a generous allowance of cod liver oil (℥ ss ℥ ii). The phosphates, so valuable to this class of patients, can be supplied in sufficient quantity only by special preparations. For patients over forty, meats should be lean rather than fat, and be taken in large amount. Two or three pounds of beef, three to four quarts of milk, and three or four eggs may be given to such patients in twenty-four hours.

In the second stages, changes are required in the method of preparing the food rather than of the article's employed. All the food must be given in fine division and prepared in the most palatable manner. Beef may be scraped or chopped with a dull knife, only the fine which adheres to the blade being used, and eaten raw or lightly or quickly cooked, the essential points being the removal of all coarse fibre and rendering it palatable to the patient. Milk may be taken raw, boiled,

cooked in custard, curdled or shaken with cracked ice and a little salt. Eggs are best taken raw or soft boiled. Kumyss may in part take the place of milk, and the various peptonoids of beef, milk, etc., will relieve the enfeebled digestive organs as well as afford valuable nutrition. Cod liver oil will require emulsification and fresh emulsions are to be preferred to the stock preparations. Practically I have found an emulsion of oil, pepsin and quinine available when others caused indigestion and offensive eructations.

In the third stage when only prolongation of life can be expected, the forced diet of the earlier stages must be abandoned. When a hearty meal causes cough and vomiting with consequent exhaustion better results will be obtained with smaller quantities of food. In such cases the food must be reduced in quantity, given more frequently, and should consist largely of artificially digested preparations.

It is quite customary to delay the use of the digestive ferments until the later stages of the disease, but since it is in the first stage almost solely that we effect a cure, it seems the wiser course to concentrate all our forces upon the disease at this time.

When we wish to crowd the nutrition twenty to thirty grains of pepsin with fifteen to twenty minims of Acid Hal. directly after eating, and ten to fifteen grains of pancreatine one hour after taking food will enable a patient to digest an amount of food, which otherwise would produce an acute dyspepsia. When the digestion of starches is at fault or requires assistance, the diastase alone may be given with or after the meal. In the second and third stages artificial digestion becomes a necessity.

Some of the most important rules which govern the dietetics of phthisis may be formulated as follows:

1. Every phthisical patient should take food not less than six times in the twenty-four hours. The three full meals may be at intervals of six hours with light lunches between.

2. No more food should be taken at any one time then can be digested easily and fully in the time allowed.

3. Food should never be taken when the patient is suffering from bodily fatigue, mental worry or nervous excitement. For this reason mid-day naps should be taken before, not after, eating. Twenty to thirty minutes' rest in the recumbent posture, even if sleep is not obtained, will often prove of more value as an adjuvant to digestion than pharmaceutical preparations.

4. So far as possible each meal should consist of such articles as require about the same time for digestion, or better still, of a single article.

5. Within reasonable limits the articles of any one meal should be such as are digested in either the stomach or intestine alone, *i.e.*, the fats, starches and sugars should not be mixed with the albuminoids, and the meals should alternate in this respect.

6. In the earlier stages the amount of fluid taken with the meals should be small, and later the use of some solid food is to be continued as long as possible.

7. When the pressure of food in the stomach excites cough, or when paroxysms of coughing have induced vomiting, the indigestion of food must be delayed until the cough ceases, or an appropriate sedative may be employed. In those extreme cases where every attempt at eating excites nausea, vomiting and spasmodic cough, excellent results are attained by artificial feeding through the soft rubber stomach tube.

8. So long as the strength will permit assimilation and excretion must be stimulated by systematic exercise, and when this is no longer possible the nutritive processes may be materially assisted by passive exercise at regular intervals.

The following may serve as a sample menu for a day in the earlier stage. The meat soup is made by digesting finely chopped beef (1lb) in water (Oj) and hydrochloric acid (5M) and straining through cheese cloth.

MENU.

On waking.—One-half pint equal parts hot milk and vichy, taken at intervals through half an hour.

8 a.m.—Oatmeal with abundance of cream, little sugar: rare steak or loin chops with fat, cream potatoes; soft boiled eggs, cream toast; small cup of coffee, two glasses of milk.

9 a.m.—Half ounce cod liver oil, or one ounce peptonized cod liver oil and milk.

10 a.m.—Half pint raw meat soup; thin slice stale bread.

11-12.—Sleep.

12.30 p.m.—Some white fish; very little rice; broiled or stewed chicken; cauliflower; stale bread and plenty of butter; baked apples and cream; milk, Kumyss or Matzoon, two glasses.

2 p.m.—Half ounce cod liver oil, or one ounce peptonized cod liver oil and milk.

4 p.m.—Bottle Kumyss or Matzoon; raw scraped beef sandwich.

5.30-6 p.m.—Rest or sleep.

6 p.m.—Some thick meat or fish soup; rare roast beef or mutton; spinach; slice stale bread; custard pudding; ice cream.

8 p.m.—Half ounce cod liver oil, or one ounce peptonized cod liver oil, and milk.

9-10 p.m.—Pint iced milk; cup meat soup.

1-2 a.m.—Glass milk, if awake.

THE DIETARY IN INDIGESTION.

By J. Milner Fothergill, M.D., Edin.

When I hear medical men denouncing a regulated dietary in indigestion, my surprise is excited. Is it malady to be combatted by drugs only? I do

not think anyone will support that proposition. Medicinal agents are not without their value; but the medicinal treatment of indigestion is surely but ancillary to the dietetic management. That a regulated dietary is too often a restricted dietary—so restricted indeed that the patient is practically half-starved—may be admitted. But need a regulated dietary necessarily be a very restricted one? I opine not; if the matter of the dietary of the dyspeptic be given a little more attention.

And for this it is well to keep the physiology of indigestion in mind. Digestion is solution by hydration so that the carbo-hydrates and albuminoids may pass through the wall of the alimentary canal; after which they are de-hydrated—else they would pass out by the kidney, giving glycosuria and peptonaria and leaving the body unfed. But a preliminary to solution is disintegration. If mastication be not properly performed the "lumps" of food find their way into the stomach and offend it.

Pastry, pieces of hard potato, cheese, are notorious offenders. The solvent action of the gastric juice can exercise no disintegrating effect upon the substances, while they act as irritants and set up pain. A piece of meat comparatively unchewed is less objectionable, because the gastric juice acting upon the connective tissue allows the muscular fibrillæ to fall asunder. But even with muscular fibre there is a wide difference. Pork and veal are hard meats, and not readily falling to pieces in the stomach under the action of the gastric juice are held, and rightly too, to be indigestible. On the other hand a thin slice of well boiled ham, cut across the fibre, is very digestible. So is the loose fibre of a sheep's head. This is the mechanical aspect of the digestibility of food. Hard stringy meat is very indigestible. So are ill-cooked vegetables, and especially the cruciferæ, so are hard boiled eggs.

Fish and especially white fish, whose fibres very readily fall to pieces, are in repute with dyspeptics for obvious reasons. Fish which are fatty are indigestible (because the fat resists the action of the gastric juice), as the flesh of the salmon, the mackerel and the herring. The short fibre of the whiting, "the chicken of the sea," makes this fish especially digestible. Then come the flat fishes, the haddock and the cod. They all are best boiled, for if fried, care is requisite that the flesh be not soaked in fat—when it is highly indigestible. There are few more indigestible matters than a fried sole which has not been skillfully cooked. And the same holds good of birds. Chicken and game are indigestible, while the duck and goose, greasy-fibred meats, are as certainly indigestible.

Potatoes have an evil reputation, but that again is largely a matter of cooking. A potato which is imperfectly cooked has a hard centre. A "stone," an Irishman calls it—and if palpable pieces of such hard indigestible matter be swallowed gastric distress is the intelligible result. But if the potato be well cooked and put through a seive it ceases to be indigestible from "the mechanical point of view." It is the question of disintegration which militates against vegetables, and uncooked fruit. Pieces of hard apples are notoriously indigestible; while a baked apple will sit lightly on the most irritable stomach. The flesh of the grape is in great repute in all conditions of gastric irritability and debility, whether primary or secondary to some general sickness.

Fat is an offence to a susceptible stomach, even as liquid fat floating about in it; but still more as lumps of fat upon which the stomach can exercise no solvent influence. Hence many persons, children and adults reject sweet pieces of fat, and (after the meal) take some fishy oil. As the digestion of fat does not commence till the food has left the stomach, it is not well to give fat till its "time draws nigh." Thin stale bread with butter rubbed well in and doubled is much more digestible than the same bread cut thick with a stout layer of butter plastered over it.

Pastry, when fat and flour are well rubbed together, forms a most indigestible compound resisting all disintegration except mastication. Suet puddings and dumplings also are indigestible.

On the other hand milk puddings, especially if made without an egg, are in repute, and not without reason for dyspeptics. They are light and sit easily on the stomach, the farinaceous matter being readily disintegrated, and what escapes disintegration is soft and does not give offence to the stomach.

There is another matter not of accult but of miscroscopic disintegration, or actual solution which has yet to be discussed—a matter of vital importance. A savage man sat grinding the cereals which form so large a factor in human food, the action of the jaw produced a free flow of saliva, and as fast as the finer particles were broken off the seed, by the crunching of the teeth, diastase of the saliva converted the insoluble starch into the soluble dextrine and grapesugar. The toil of the miller produces disintegration and relieves the jaws of much of the labor. But disintegration is only the precursor of solution. The starch granule remains. By heat the cook cracks the starch granule so that the solvent diastase can readily act upon it. So far, so good; but heat does something more. It has an actual solvent action; and heat will, if sufficient, cause conversion of starch into dextrine. A thoroughly well baken flour, if subjected to the iodine test under a microscope, will readily show this.

When a large quantity of raw unconverted startch enters the stomach it is a burden to that viscus. The gastric juice has no effect upon starch and the starch granules merely embarrass the action of the stomach until they find their way out of it by the pyloric ring—and sometimes by the way they entered, viz., the gullet. Undigested starch hampers the stomach and makes the labor of that viscus a painful toil to it. New bread is a gross mechanical irritant, resisting disintegration.

The impediment caused by isolated but numerous starch-granules is another matter. Biscuits and crackers if insufficiently masticated cause indigestion. So do cakes which have not long been exposed to heat. The cakes which are held in such favor by the breakfast table in American households have been regarded as indigestible, and a glance at an American cooking book explains why. These cakes are exposed to heat for from thirty to forty minutes only. [The language of England sometimes requires translation. For cakes read rolls, and for biscuits read crackers.—ED.] A good biscuit or loaf is much longer in the oven. Potatoes are indigestible as ordinarily eaten, because they are not long exposed to heat. But if well mashed potatoss be put into the oven to brown, or be placed before the fire for that purpose, the longer exposure to heat tells upon the starch-conversion.

Hominy that is well-boiled or subjected to the final heating process of cooking is decidedly digestible. Cereals that have been steam-cooked are in repute with dyspeptics either for adding to meat teas, or for preparing milk-puddings. Some cooks who have to cater for dyspeptics boil all their rice, sago, and tapioca thoroughly before making these up with milk for a milk-pudding. In Germany pearl-barley thoroughly well boiled and passed through a seive is in request as an addition to meat teas for invalids. The porridge of Scotland being made with coarse oatmeal is boiled a long time, while in England a short boil is enough with the fine ground oatmeal in vogue there.

The advantage of the numerous prepared foods —whether babies' food or invalids' foods—which are all more or less compounds of starch which has been to ascertain extent predigested either by baking or the malting process, lies in their ready digestiblity: A touch of saliva is enough to complete the conversion of such carbo-hydrates and the soluble matters pass out of the alimentary canal, and the stomach is not burdened with a weight of undigested starch impeding its work.

Gross and fine disintegration of food and cardinal matters in the dietary of dyspeptics.

Mastication must be perfect else gross particles embarrass the stomach. Starch granules which have escaped the saliva interfere with the solvent action of the gastric juice on albuminoids. The dietary of dyspeptics must be conducted on the above lines; and if the dyspeptic were properly informed he could find a sufficient variety of food; but if he be told to diet himself upon a number of articles of food he soon begins to loathe them and often goes without food sooner than partake of them.

Of course there are dyspeptics and dyspeptics! Some only require to give a sufficiency of time to the process of mastication to be free from suffering. Others must eschew pastry, veal and pork. Others again have to abandon solid meat and vegetables and adhere to meat broths, with cooked starch, malt-extracts, malted preparations, milk puddings and fish. When the stomach has been outraged or offended care is requisite for its restoration. When there is present condition of general exhaustion food will disagree which ordinarily can be taken with impunity. When a condition of acute indigestion is set up a very careful dietary for a few days is directly curative.

Ready disintegration and solubility of food constitute the base line of the dietetic treatment of indigestion.

SORE NIPPLES.

Dr. Wilson, of Glasgow, recommends the following for sore nipples:

℞. Plumb. nitrat..... gr-xxx.
Glycerini..... ʒ j.
M.—Apply after suckling, the nipples being washed before the child is again put to the breast.

Dr. Playfair recommends:

℞. Sulphurous acid..... ½ oz.
Glycerin of tannin..... ½ oz.
Water..... 1 oz.
M.—Apply after suckling.

Dr. Barnes recommends:

After washing away remains of milk after nursing, smear with salve made of:

℞. Liquor plumbi..... 1 dr.
Prepared calamine powder.... 1 dr.
Glycerini..... 1 dr.
M.—Vaseline..... 7 dr.

—*Qr. Comp. Med. Sci.*

CAMPHOR, CHLORAL, AND COCAINE IN TOOTHACHE.

Dr. K. Gsellfels recommends in toothache, with hollow teeth, a plug of cotton wool saturated with a mixture made by heating five parts of camphor, five parts of chloral hydrate, and one part of hydrochlorate of cocaine to boiling for some minutes. An oily liquid is obtained.

THE USE AND ABUSE OF TEA.

A French observer has recently tabulated the evil results which, in many cases, follow the excessive use of what is now the favorite beverage of Teutonic and Sclavonic nations. The list is a formidable enumeration of neurotic and dyspeptic affections, which are not the less worthy of attention because they are mainly functional disorders, tending to the embittering of existence rather than the shortening of life. English clinical teachers are somewhat divided on this question. Some make light of the alleged evils of tea-drinking, and regard the prohibition of tea as, in many cases, merely a professional fad. Others teach that the mischief, of which they admit the existence,

is due less to excessive use of tea than to the omission from the regular dietary of the really nutritive and sustaining elements. A third class regard tea-drinking as an evil almost comparable to alcoholism.

Tea has won its way to favor among civilized nations mainly, it would seem, as an agreeable nervine stimulant. As Sir William Roberts points out, in his interesting lectures upon dietetics, a crane-stimulation is one of the most marked characteristics of advanced civilization, although savage man is by no means devoid of this universal human instinct. The stimulants in common use are tea, coffee, tobacco, and alcohol—not to mention such agents as opium or *haschish*, which are perhaps less stimulant than narcotic. Of this group, tea and coffee are the favorites, as they suit the taste of both sexes; and their beneficial effects undoubtedly far outweigh the evils which occasionally spring from their abuse.

Tea is an agreeable cerebral stimulant, quickening intellectual operations, removing headache and fatigue, and promoting cheerfulness and a sense of well-being. It is known to all English speaking people as the " cup that cheers but not inebriates ;" and it has long been a favorite with studnts, literary men, and others engaged chiefly in brain work. Tea is also a mild sudorific, and is largely consumed in hot countries, especially our Australial colonies, where it is found to exercise a cooling influence, after the preliminary effect due to the imbibition of a hot fluid has passed off. The influence of tea upon the digestive tract has not been so definitely made out, but the most recent observations seem to show that, while it somewhat retards primary digestion, it aids the absorption and metabolism of the food-elements. From such physiological facts, it is clear that tea is chiefly of service during or after physical or intellectual effort, and at the time when absorption of the products of primary digestion is in process. It cannot too strongly be asserted that tea is not in any exact sense a true food, and that its nutritive value, in itself, is practically naught.

As might be conjectured from the nature of the physiological action of tea, the effects of its abuse fall chiefly on the nervous and digestive systems. Nervous irritability, palpitation, insomnia, and sense of brain-fatigue are among the most prominent of the neurotic symptoms; and, although it is unquestionable that the symptoms are often etiologically connected with other sources of nervous disturbance as well as tea-drinking, it is not less clear that they are greatly aggravated by the excessive use of tea. The digestive symptoms are impairment of the appetite, pain and flatulence during the process of digestion and defective intestinal action—the symptoms, in fact, of one of the varieties of atonic dyspepsia. How far these symptoms are due the thein contained in tea, and how far to its tannin, is a question. Sir William Roberts has shown that the most rapid infusion does not prevent the dissolving out of a large proportion of the tannin, and we are disposed to conjecture that the digestive symptoms may to a large degree be safely attributed, not to any chemical action, but to the same cause which produces the neurotic disturbance, namely, the thein.

The sufferers from excessive tea-drinking may be grouped into three classes.

First, there is the large class of pure brain-workers, who speedily discover that, while alcohol is pernicious to them, tea affords the stimulus which they desire. They indulge in it without fear of mischief, and often to an unlimited extent. Dr. Johnston's tea drinking was proverbial, and many distinguished writers could tell a similar tale. After a time, the neurotic symptoms enumerated above begin to make their appearance, and, in many cases, do much to impair temper, and to limit the capacity for sustained intellectual effort.

Secondly, there is the large class of women of the better classes who, beginning with afternoon tea, often end by using their favorite stimulant in the intervals between all the meals of the day, and as often as the humor takes them. The result is that appetite becomes impaired, and the prostration due to insufficient nourishment is combated with more potations of the ever welcome stimulant, until the vicious circle is well established.

Thirdly, in all our large manufacturing towns there are numbers of factory-operatives, especially women, finding it difficult to provide a cheap and appetising mid-day meal, fly to the teapot, and do large amount of severe physical labor on this miserable dietary. It is most important to impress upon this class, who are usually profoundly ignorant of everything concerning health and diet, that tea is not a food, and that the delusive sense of satisfaction which it bestows is a dangerous snare.

In addition to the above classes, there is a small group of persons to whom tea seems a positive poison. We know that idiosyncrasy accounts for the most extraordinary departures from the normal rule in matters of diet or the action of medicine ; and the number of persons whose idiosyncrasy includes an intolerance of tea is considerable enough to make the subject worthy of professional attention.

Sufferers from the abuse of tea should abstain from its use, and substitute either coffee or cocoa. It will be found that many of those who are unfavorably affected by tea are equally susceptible to the action of coffee; but this is by no means universally true, and the substitution can often be made with decided advantage. Cocoa suits almost all cases, and, whatever may be its deficiencies on the score of palatability, it is a genuine food, and its modern preparations are becoming more and more elegant and pleasing to he taste.—*British Medical Journal.*

PHYTOLACCA DECANDRA IN THE TREATMENT OF BRONCHOCELE.

Dr. J. D. Ely thus writes in the *Medical Age:*

Of course it is taken for granted that notice of any agent that is superior to iodine, biniodide of mercury, and other time-honored and much-used remedies in the treatment of bronchocele, and especially one that is free from the deleterious effect—such as iodism, derangement of the stomach, etc.—as frequently noticed and regretted of them, will be received by the profession with interest and profit.

Therefore it is with pleasure that I offer a few facts in regard to phytolacca decantra, which, I believe, is as near a specific for that troublesome disease as we have for any other.

In doing so, I wish it understood that I have tested thoroughly about all the remedies recommended by leading authors, and after comparing the effects and results of phytolacca with them, much prefer it.

It has been a favorite remedy with my father more than twenty years in the treatment of all glandular diseases.

It has never failed, in his hands, to cure all cases of bronchocele, curable by any means, upon which he has used it, and he has, because of his success, had more than the usual number to treat.

Before giving the report of a case illustrating its use, which I select from a number I have treated successfully during the past two years, it is important to note that much of the tincture and fluid extract of phytolacca on the market is worthless, and I have, from necessity rather than choice, prepared most of the tincture which I have used.

I would advise those who have given phytolacca a trial and condemned it, and any who may try it and not get satisfactory results from the article purchased, to prepare their own tincture.

The following method has always given us a reliable and satisfactory article; but before it I may note, for the benefit of those not acquainted with phytolacca, that it grows in abundance in nearly all parts of this State, and is known to most farmers by its common name, "poke root."

Procure the fresh roots, and, after washing them clean, slice and put to dry where they will get the sun, till the water is as nearly dried out as possible, then pack in a percolator—a fruit jar will answer—and cover with absolute alcohol, full strength.

(It is probable that many manufacturers of it do not get a good article because they use old, dry roots, and diluted alcohol as the menstruum.)

Let it stand at least fifteen days, press out, filter, and it is ready for use. Dose, from three to ten drops.

It should be borne in mind that it acts slowly, and is designed to, and in the doses recommended, as experience has proven, that in so using it the specific alterative effect desired is more safely and satisfactorily obtained.

Recent cases yield readily to the remedy, and are cured in from one to three months. Difficult cases of long standing, of which the following is a sample, will need treatment for a year or more :

Lizzie M., aged 16 years, consulted me June 17, 1885, for treatment of a bronchocele, the first appearance of which was noticed eight years previous. On examination, I found both glands and the isthmus involved, and so great was the enlargement that the circumference of the neck measured nineteen and one-fourth inches.

It was more uniform than generally seen, was very hard, and so tightly filled the skin that it could not be moved. Pressure upon the laryngeal nerve was so great that the patient wheezed as if suffering from asthma, and could not walk rapidly because of the interference with respiration.

She presented the characteristic appearance peculiar to scrofulous diseases, and there was history of similar troubles among the relatives.

Bowels were regular, kidneys all right, and menstruation, which had been properly established at 13 years of age, was regular, and had always been so.

I may add here that the menstrual irregularity, mentioned by some authors as always to be noticed in these cases, has not been found, by me, to exist in any I have treated, and I do not believe it is common or that the disease is, in any way, connected with disease of the reproductive organs, as claimed by some.

Recognizing this as a most difficult case, my prognosis was unfavorable; but the patient being anxious to try treatment, I consented to give it, and prescribed the following, which was used for about one year and with success :

℞. Tinct. phytolac. decand., ℥ ss.
Syr. simplicis, ℥ iijss.
M. Sig.—One teaspoonful in water 3 or 4 times a day.

Also—

℞. Ferri dialyzati ℥ j.
Glycerini puris.
Syrup simplicis, aa ℥ iss.
M. Sig.—One teaspoonful in water after each meal.

Ordered applications of the tincture to the glands night and morning, to be diluted with pure rain water if it caused much irritation—as it will sometimes—and, if necessary, to discontinue it for a few days, and take plenty of outdoor exercise.

The only change noticed the first two months was that the glands had softened slightly. After that they decreased in size quite rapidly, and the improvement was marked in every respect, continuing till the neck became normal in size, the difficulty of breathing disappeared, and the patient considered herself cured, one year after beginning treatment.

She continued the application and tonic for a short time longer, at my request, however, to make

"assurance doubly sure," and to prevent any recurrence—a plan which I have always considered good, and recommend.

I have under observation patients who were treated with phytolacca successfully eleven years ago, and, so far, the cures are permanent.

In one case only has there been any return of the trouble, and that was due to the patient considering herself cured and stopping treatment too early.

It is is very important, I think, to always use a tonic, when giving an alterative, and I never omit it.

I have, in a few instances where there was difficulty in getting the patient to take the separate prescriptions regularly for a long time, combined the phytolacca with the prescription containing the dialyzed iron, apparently with as good results, but prefer to give them singly, and generally do.

THE TREATMENT OF BRONCHITIS.

This little boy, ten years of age, comes to us with a history of repeated colds. The present attack has lasted for two weeks, and is accompanied with cough and expectoration. It is important, where there is a history of repeated attacks of cough to examine with especial care the apices of the lungs, and observe whether or not there is percussion resonance above the clavicles. One of the most important signs of consumptive disease, whether of the tubercular or of the chronic pneumonic variety, is lack of resonance above one or other clavicle. In the present case the resonance above the clavicles is normal. On auscultation, I find mucous and sonorous râles. We have here a case of bronchitis tending to become chronic. This, in its origin, was acute; as a result of neglect, it has not been cured, but fresh attacks have supervened.

In the treatment of acute bronchitis, one of the first principles is to keep the patient in a warm room with a moist atmosphere. If the room be heated by a stove, a pan of water should be kept constantly boiling upon it. If the room be heated by a furnace, a wet towel should be hung in front of the register, with the lower portion dipping into a pan of water. The child should be kept in this room night and day. There is no principle in the treatment of bronchitis which is so important as this. If this be attended to, expectorants may be discarded. If this precaution be not observed, ipecac and its congeners are comparatively useless, and, in fact, their utility in any event is doubtful.

The indications in the treatment of acute bronchitis are to allay the fever, if present, and to soothe the irritated mucous membrane. The object is not to stop the cough, but only that portion which is useless. To soothe the mucous membrane and to allay nervous irritability, the remedy is opium. If there be fever, a small quantity of aconite may be given, or even a minute dose of antimony, which is better than ipecac. As a rule, it is not necessary to give much medicine during the acute stage, provided the hygienic treatment is carried out. We shall give this child three grains of Dover's powder to be taken at bedtime. During the day he will receive a small quantity of potassium citrate with a little syrup of lemon. When the disease shows a tendency to become chronic, we must give something that will invigorate the mucous membrane and enable it to throw off the disease. The best remedy for this purpose is codliver oil. In this case, I should order a teaspoonful of emulsion of codliver oil with lime, to be taken half an hour after each meal. It would be of service to have the chest rubbed with a stimulating liniment. The ammonia and sweet-oil liniment will answer as well as anything. This may be applied three times a day, and if the child is hoarse at bedtime, a piece of flannel, on which some of the liniment is spread, may be applied to the front of the chest. The most important element, and the one to be insisted on most strongly, is that the child shall be kept in a warm room.—*Philadelphia Polyclinic.*

THE CANADA MEDICAL RECORD.

A Monthly Journal of Medicine and Surgery.

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MONTREAL, DECEMBER, 1886.

COLLEGE OF PHYSICIANS AND SURGEONS PROVINCE OF QUEBEC.

In answer to very many enquiries we beg to say, that the provisions of the preposed new Medical Act are not intended to come into effect till after January 1st, 1888,—that portion which refers to the alteration in the election of Governors will not, of course, take effect till a new Board requires election, that is, not till the summer of 1889.

CREDIT WHERE DUE.

In the *Record* for November three articles appear, copied from the *Journal of Reconstruction* of New York, and without credit being given to

it for them. This we regret and apologize for. The articles were "The Dietary of Pulmonary Phthisis," by Dr. Loomis, page 36. "Shall patients eat what they crave," page 44. "The Milk Treatment," page 46. At page 32 same number, is an article on "The Treatment for the Vomiting of Pregnancy," which should be credited to the "Southern California Practitioner," published at Los Angelos.

SMALL-POX AT KINGSTON, JAMAICA.

Kingston, Jamaica, has been suffering from a severe epidemic of small-pox. On the 13th of October there was 362 cases under treatment, but under the energetic measures carried out by our friend Dr. James Ogilvie, the Health officer, the disease has been gradually declining. Under a late date Dr. Ogilvie writes us that in a few weeks the disease would be completely stamped out. Dr. Bronstorph (M.D. Bishops 1884) has been lecturing before the Young Men's Christian Association of Jamaica on small-pox and vaccination. His lecture was thought so well of, that the Association published it, and distributed it.

Lady Wilson, the widow of Sir Erasmus Wilson, died recently. The Royal College of Surgeons now becomes entitled to the legacy of $1,000,000 left by Sir Erasmus.

The British Medical Association have decided to hold their annual meeting for 1887 in Dublin, and Dr. J. T. Banks, professor of Physiology in the University of Dublin, is the president-elect. The meeting will be held on August 2, 3, 4 and 5.

Some one has discovered certain points of similarity between a baby and a widower: he cries a great deal the first three months; after this he becomes quiet, and begins to notice; and it is with considerable difficulty that he is made to survive his second summer.

FORTY THOUSAND NEW DOCTORS IN TEN YEARS.

The *Medical Record* says that in the last nine years 103,598 persons have matriculated as medical students. and one-third of these, or 33,684, have become doctors of medicine. At this rate the total number of doctors for the decade will be nearly forty thousand. For making these, the medical colleges must have received over twelve millions of dollars.

A CURIOUS WAGER.

The following is extracted from the *Indian Medical Journal* for July: "Two Mahometans in Hyderabad City made a curious wager the other day, which resulted in the death of one of them. The deceased accepted a challenge that he would stand facing the sun from 8 a. m. to 6 p. m. A certain day was appointed, when a large gathering assembled to witness the *tamasha*, as they styled it. The deceased took his stand, gazing at the sun from the agreed time up to 3 p. m., when suddenly he dropped, foaming from the mouth. Medical aid was soon summoned, but before assistance arrived life was extinct.

ON A MEANS OF RECOGNIZING THAT THE UMBILICAL CORD IS ROUND THE NECK OF THE CHILD.

Dr. F. R. Humphrys, in the *Brit. Med. Jour.*, says that in nearly all the cases of this occurrence he has come across, the mother has cried out, much the same as she would in the early part of the first stage of labor, and complained of sharp acute pain, which stands out in curious contrast with the bearing-down of the latter part of the second stage of labor (when the head is on the perineum), at which it is obscured. He has very rarely noticed this cry when the cord was not round the neck of the child.

TREATMENT OF INGROWING TOE-NAIL.

The *Philadelphia Medical Reporter* says that, Dr. Philip Miall writes to the *Brit. Med Jour.* that he has for many years used tannin for ingrowing nails, and does not find rest necessary. A concentrated solution (an ounce of perfectly fresh tannic acid dissolved in six drachms of pure water, with a gentle heat) must be painted on the soft parts twice a day. Two cases recently had no pain or lameness after the first application, and went about their work immediately, which they could not before. After about three weeks of this treatment, the nail had grown to its proper length and breadth, and the cure was complete. No other treatment of any kind was used, though formerly he introduced lint under the ingrowing edge in such cases.

THE CANADA MEDICAL RECORD.

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CLINICAL LECTURE DELIVERED AT THE MONTREAL GENERAL HOSPITAL.

OCTOBER 12th, 1886.

By F. WAYLAND CAMPBELL, M.D., L.R.C.P., London,
Dean of, and Professor of Practice of Medicine
in the Faculty of Medicine, University of
Bishop's College.

GENTLEMEN,—The patient before you is a young man, who by trade is a machinist, and he has contracted what is commonly designated "a cold." He came a week ago to the out-door clinic, complaining as his chief symptom—loss of voice. This loss of voice is called aphonia, and in such cases is very often the result of a sub-acute inflammation of the larynx, indicated by slight pain or pressure over the larynx. There is generally at first hoarseness, then the aphonia follows, succeeded by cough and expectoration, at first transparent and viscid and afterwards opaque and thick. Its only danger is the possibility of its developing into the acute form, but this danger is small. The treatment is very simple and usually very effectual. A mustard poultice should be applied over the larynx for about eight minutes; the patient should inspire either the vapor of pure boiling water, or to the boiling water, from ten to fifteen drops of tincture of iodine may be added and thus an iodized vapor is inhaled. Some of these cases seem to depend upon a relaxed condition of the vocal cords, and in such cases the application of a sponge probang, saturated with a twenty grain solution of nitrate of silver, will be found very useful. I made this application to this man, when he first came, and then used the moist iodine vapor. He has decidedly improved, and he is in a fair way to make a speedy recovery. In addition to the local treatment, tonics will be found very useful. In females there is a form of functional aphonia, which is of an hysterical character. The character of the voice is different. In aphonia, due to laryngitis, it is coarse and husky; when it is hysterical it is a soft whisper. We also sometimes have aphonia feigned, with a view of producing sympathy; but if the cases be watched, they will at an unguarded moment forget their supposed malady and speak out in the full tones of their voice.

The old man over 60 years of age, I now present to you, came to the Hospital a week ago, complaining of great difficulty in swallowing food. He says that for a considerable time he has noticed that after swallowing food, when it reached a certain point in the œsophagus he felt it stop, and that it remained there till he made repeated efforts at swallowing, when it seemed to get dislodged and pass onward. Obstruction in the œsophagus may be purposely of a functional character, or it may be due to organic disease, or it may be due to pressure of a tumor on the tube. The most common cause of the functional variety is generally some nervous condition, as hysteria and hypochondriasis. In the organic form the most frequent cause is cancer; and when due to pressure it may be from an enlarged thyroid gland, or enlarged lymphatic glands in the neck or chest, or an aneurism. Dysphagia is the principal symptom of organic obstruction, and the sensation that food is arrested is generally situated just behind the upper part of the sternum. The difficulty is slight at first, but gradually increases

until nothing whatever will pass. Liquids and soft food, of course, pass more readily than does soft food. The food is either immediately regurgitated or spasmodically rejected. Sometimes a considerable quantity of food is retained for some time in a dilatation, when it is discharged, alkaline in reaction and much decomposed. In consequence of the reduced quantity of food entering the stomach the patient emaciates, becomes weak and has a retracted abdomen. The use of the bougie or probang will enable you to establish a diagnosis as to functional or organic structure. In the functional variety—although the probang may meet with resistance, this can with steady pressure be overcome. In the organic variety the bougie cannot be passed, when the disease has reached a point sufficient to attract strongly the attention of the patient to the obstruction. The patient before you is quite convinced that there is obstruction to the passage of the food. I am equally convinced that there is no obstruction other than that which is functional, and the result of a neurotic or nervous affection. In proof of this I at the time of his first visit passed a probang the full length of the œsophagial canal, and will now do so again. The passage of the instrument in the first instance seems to have convinced this patient food should pass more freely after the passage of such an instrument, and the consequence is that he expresses himself to-day as feeling somewhat better. If he does not improve rapidly I will give him iron and valerian ; but in the meantime have placed him on one of the vegetable tinctures—viz., gentian as a tonic, which will assist in giving tone to his system, which, as you can judge from the man's appearance, he stands much in need of. In the organic variety little can be done in the way of treatment, though gradual dilatation may be attempted by bougies. If the cause of the organic stricture is cancer of course the case is hopeless ; you can, however, do much to relieve the patient's suffering by the administration of anodyne, while at the same time the patient's strength must be kept up, when required, by rectal alimentation, in which must not be forgotton the injection into the rectum of defibrinated blood.

(From our Boston Correspondent.)

LETTER FROM THE HUB.

Editors CANADA MEDICAL RECORD.

DEAR SIRS,—The nearness of the good old Puritan city of Boston to Montreal (a half day's journey) makes it to be frequently visited by denizens of the latter. Its many places of interest and objects of attraction, such as the Dome of the State House, the Pleasure Gardens and Common, Beacon Street, Commonwealth avenue, Trinity Church and the New Old South, the Art Gallery, its crooked streets, Forest Hills and Mount Auburn, etc., are as familiar to the Canadian almost as to the American, and are, as it were, "Forever photographed on the mind." Then, too, Boston holds a warm place in the heart of a great many married men, as it is seldom left out in a wedding tour ; and although on such an occasion the groom is supposed to be oblivious of all else but his blooming bride, he no doubt manages, or it may be the attractive force of the surroundings exert their overpowering influence on his cerebral cells, and live ever green in his memory. But it is not the beautiful city of Boston itself, the Modern Athens, as it has been styled, that I wish to describe, this would be altogether unnecessary ; but I thought it might not be uninteresting to the readers of the RECORD to give them a glimpse of Boston from a medical point of view, to inform you as to the nature and doings of things medical here, its medical school, hospitals, profession, and medical societies. Although perhaps not such a medical centre as New York, or Philadelphia, the Hub of the Universe, as Bostonians delight to call their native city, offers many advantages to the follower of Œsculapius. The larger size of New York and Philadelphia and, as a consequence, larger clinical experience and more central position, attracts more students to the latter cities ; but one need not go out of Boston to get all the instruction, theoretical or practical, required. It can boast of one of the oldest and one of the best, if not the best medical schools in the United States, of large and well appointed hospitals, of distinguished and learned professional men, a large well stocked medical library, and well conducted Medical Societies ; in fact the medical student or practitioner can have his every desire or ambition satisfied in Boston. I purpose in this my first letter dwelling briefly on the Harvard Medical school. To write the history of the School would be to write the history of medicine in the United States. I will, therefore, limit myself to the Harvard of the present, not of the past. The old Medical school still stands in the west end of the city, near the Massachusetts General Hospital, a monument redolent of the past. It was here where most of

the Boston and New England men were initiated into the mysteries of medicine; and, no doubt, to most Boston men, a great many pleasant associations cling around the old place. The old building is there, but the life, the energy, the jovial shouts of the medicos, and learned tones of the professors, are heard no more, but have betaken themselves to a new and superb building on the corner of Boylston and Exeter streets. This is, I believe, the largest and finest medical building on this continent. It cost $350,000. The Harvard Medical school celebrated their centennial here three or four years ago, Dr. Holmes giving the opening address. It is plain in architecture, solid in structure, not very imposing in external appearance, save as a large square red brick building, with the names of the Fathers of Medicine figuring over the entrance; but its internal arrangements and finish are splendid and unexcelled. A large hall extending from top to bottom, lighted by a sky-light, runs through the centre of the building; off this leads the various lecture and other rooms. Flights of massive stairway lead to the different stories, square galleries extend from story to story. The view from the top gallery is impressive. Stairways remind one somewhat of the stairways in the Grand Opera House, Paris. The ground floor is marble, with numerous corinthian pillars, resembling in appearance an ancient temple. The college notices are posted up in neat glass cases; on the lower floor here are, also, the Janitor's apartments, reading and smoking rooms. Behind the stairway is the coat-room, and books for reference are at hand, also the various Medical periodicals. The reading room is large, well lighted, with numerous reading desks scattered over it; it contains specimens of Materia Medica for reference. On the second floor is a lecture room for Chemistry and Physiology, built in the form of an amphitheatre. The students enter from a gallery at the top, a large sliding black board is placed in the wall, back of where the professor lecturesand facing the students. On the ground floor of the room on either side are doors; the one on the right entering into a Chemical Laboratory, where the lecturer on chemistry prepares his experiments for the class, that on the left into the Physiological Laboratory, where the professor of Physiology has every facility for illustrating his lecture. The Physiological Laboratory is superb in its appointments, every device or implement necessary for the practical study of Physiology being at hand; leading off this is a Mechanical room, which has a small engine, and skilled workmen, where almost anything can be made. Dr. Bowditch, Dean of the Faculty, lectures on Physiology. There is a large Laboratory extending the whole of one side of the building, for practical chemistry, students being provided with all necessary materials. On the top story is a very large anatomical Lecture room, capable of seating a great many students, similar to the Physiological room but larger. On the wall hangs a large oil painting of Dr. Holmes. There is also an excellent bust of Bigelow in this room. There is another large lecture room for the final branches, and several other smaller rooms. The dissecting room is at the top of the building, capacious, well ventilated, and, unlike most dissecting rooms, cleanly. There is no scarcity of subjects, the Anatomy Act having been long in force here.

The Museum called the "Warren Museum" is a very fine one, and compares favorably with the museums of the larger Hospitals in London. Like them it has a gallery surrounding it. There are many interesting medical curios here, among the most notable may be mentioned the skull that was pierced by a crow-bar; both skull and crow-bar are on exhibition. This case is recorded in most works on Medical Jurisprudence. The man lived 12 years after having his skull pierced. The crow-bar entered the skull near the orbit, and came out in the occipital region, thus piercing the most vital parts of the brain. In the gallery is a well stocked museum of Materia Medica. The Harvard School is replete in everything that a medical school requires.

To become a professor in Harvard is the beau ideal of a Boston man. Once he has won this coveted honor he has reached the acme of his ambition. The names of the men constituting the Faculty of Medicine of Harvard is sufficient guarantee for the efficient education of the student. Two eminent men have of late resigned from the Faculty: Doctor Oliver Weadell Holmes, whose reputation is world wide, and Doctor Henry I. Bigelow of Litholopacy fame; both have left gaps hard to fill. The poet doctor had an inimitable way of lecturing on anatomy, peculiarly his own, rendering this somewhat dry subject interesting by his sparkling wit. I might mention, in passing, that the living skeleton that Doctor Holmes used to exhibit before his class is dead, ætat. 46, weight 40 lbs. He has bequeathed his body to Harvard College; while he was living it was thought he had

some derangement of the Thoracic Duct. Bigelow had a charming way of lecturing. I had the pleasure of an introduction to Doctor Dwight, Doctor Holmes' successor in Anatomy. He is a clear and forcible lecturer, and is destined to become a noted anatomist. He has already added some beautiful sections of bone to the Warren Museum, delineating their anatomical and histological characters. He showed me a way he had of illustrating his lectures, which may be a useful hint to professors of anatomy in Montreal, if they are not already aware of it. It is somewhat after the small transparent slates that children learn to draw with, only on a larger scale. He uses a slate of this kind about 3 feet by 4. In it he puts a bare outline of a certain portion of the body, say head and neck; this shows through the glass. He then fills this up with the muscles, arteries, nerves, as the case may be, with different colored chalks. These may be seen by all the class, and can be rubbed out or put in as required. The various extremities of the body can be taken up in this manner. The veteran opthalmologist, Dr. Williams, still lectures with unabated vigor on opthalmology. His distinguished figure still graces the streets of Boston. Long may he continue so to do. Doctor Edes has resigned the chair of Clinical Medicine and gone to Washington to practice. Great things were expected of Doctor Edes. The chair of clinical medicine is now vacant.

Dr. Minot the Nestor in "practice" here is professor of Practice of Medicine. The chair of mental diseases is filled by Dr. Charles F. Folsom, a man of distinguished attainments whom to know is to admire. Dr. Folsom lectures in a clear and scholarly style. The Canadian schools might take a lesson from Harvard in establishing a chair of mental diseases, as I believe none of them have one as yet. That it is an important and necessary chair cannot be doubted. To quote Dr. Folsom in his work on the mind: "The ink on our diplomas is scarcely dry, and we called upon to sign a paper which will send a woman to an insane asylum for life, or deprive a man of the power to make his will; when we cannot for our lives tell the difference between folie circulaire and general paralysis; when we cannot recognize many of the simplest forms of mental diseases in their early stages, and when we do not know whether the best treatment consists in sending our patients to the inactivity of an asylum or for a tramp among the hills, or whether he can as well or better be cared for at home?—an uncertainty which deprives many of the benefit of early treatment."

Dr. Durgin lectures in an admirable manner on Hygiene. Dr. Durgin enjoys much popularity among his professional brethren, and is a man of most unassuming manners. It is said that merit always wears a modest mien.

The chairs of Surgery, Obstetrics, Dermatology, Chemistry, Pathology are ably filled by Drs. Cheeves, Richardson, White, Wood, Fitz. Besides the full professorships there are a number of assistant-professors in all the various branches—very able men. Harvard has also a large number of well qualified instructors in the different departments, assisting the professors and assistant-professors. Instruction is given by lectures, recitations, clinical teaching, and practical exercises. Harvard is recognizing more and more every day the fact that students require practical rather than theoretical teaching; hence she has established splendid laboratories, and frequent demonstrations are given in Bacteriology, Histology, Physiology, Pathological, Anatomy, etc. Practical demonstrations are given in Hygiene, examination of water, houses, etc. I shall refer to the clinical advantages of Harvard when writing of the Hospitals. Harvard has a nine months session, the course extends over three years, there is a fourth year but it is optional; but I opine in the near future that the fourth year will be compulsory, making it a four years course. The special branches as Opthalmology, Dermatology, Otology, etc., are taken up the fourth year. Most students take the fourth year, although it is not necessary for graduation. The Harvard commencement is held in June. The word "commencement" is used here in contradistinction to your convocation. Convocation has certainly a more dignified ring about it, but to my mind "commencement" seems a more appropriate term. We but commence our career when we finish at College. We get but the outlines at College which we fill up with the ripe experience of after years. I notice in looking over the calendar that the Harvard students are given two hours twice a week for one month practical instruction in cookery. This is an excellent thing. Every medical man should be a good cook or understand something about cooking. The Harvard medical students have no lack of reading matter; they are at liberty to consult the library at Cambridge, the public library which contains over 4,000 medical works, the library in the Medical School itself.

There are four scholarships worth $200 dollars each given yearly.

Harvard has established a Post-graduate course to enable graduates to further prosecute their studies and to take the place of those courses which one was formerly obliged to go to Europe for. Short courses are given in all the practical branches of Medicine, either separately or the whole course may be taken. Each course runs from $15 to $30. The men who give these courses have all studied in London, Berlin, Vienna, etc., and absorbed the ideas of the eminent men in these places, so that one learns almost as much here as in the above places; but then one does not have the reputation of studying in Europe and the mere mention of having seen or studied under Virchow, Billroth, Kock, &c., at once raises one in the estimation of the Medical fraternity, their very name seeming to reflect medical skill. And then how could one get along at the Society if one did not quote German authorities, and refer to one's experience in Wien every opportunity that offers. The students attending Harvard are of a superior class, resembling those seen in the London Hospitals. The standard being high none but the best study here. It struck me that the students seemed some what older here than in Canada or London, men seem to enter the study of Medicine for the most part later in life. The number of students this session is 271; Harvard graduates yearly about 35 to 60. This is somewhat small when we consider the 100 or 200 graduates that other schools in the State send forth; but Harvard looks to the quality not the quantity. She graduates first-rate men, and there is scarcely a town in the United Statess where there is not one who is proud to call himself a graduate of Harvard. Each year she adds a number of well educated physicians to the profession, who are sure in the long run to have an elevating influence throughout the broad American continent.

J. L. F.

Boston, Jan. 5th, 1887.

Society Proceedings.

MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

Stated Meeting, Nov. 19th, 1886.

J. C. Cameron, M.D., President, in the Chair.

Dr. Major exhibited the following cases, taken from his clinic for Diseases of the Nose and Throat at the Montreal General Hospital:

1. *Complete paralysis of the right vocal band*, the result of pressure exerted by a fibroid on the right recurrent laryngeal nerve. The patient, aged 47, a painter by trade, applied for treatment. On examination the right vocal cord was found in a state of complete immobility, and occupied a position midway between that of full inspiration and phonation. A blue line on the gums, and abdominal colic pointed also to lead poisoning. This latter complication, however, in no way nor at any time influenced the laryngeal condition.

2. *Early Laryngeal Œdema (tuberculous)*, with no recognizable pulmonary infection. The patient, aged 50, applied for relief of dyspnœa and a barking choking cough. Œdema of the left arytenoid body alone was present, the swelling was grey in color and of the size of an acorn, and interfered with voice production and deglutition. After a lapse of a couple of weeks a similar condition developed in the right region. Some days later the epiglottis showed signs of swelling and thickening, and later on pulmonary signs became apparent. The lactic acid treatment was adopted, and local improvement followed. The condition of the chest would lead to the opinion that temporary arrest of the disease had taken place there also. The gradual development and extent of the œdema and subsequently lung signs are the interesting features of the case, as was also the general improvement under purely local treatment.

3. *Three cases of Laryngeal Papillomata.*—(*a*) *In May 1880, Dr. M. performed a tracheotomy on this child, then in her third year, for relief o suffocation paroxysms that endangered life. At an examination preceding the operation the larynx was found filled with watery growths. Canulæ have been worn constantly since, and no evil results have arisen therefrom. The physiological rest afforded the larynx has had a marked effect in arresting the development of the growths as has been proved experimentally during periods of temporary improvement by plugging the tube, when increased activity of the excrescences invariably followed. Absolute alcohol has been used daily as a spray in the larynx by the child's mother with the very best results. At two recent sittings evulsion by cutting forceps had been

* *Vide* writer's paper, "Rest and Tracheotomy," Canada Med. and. Surg. Journal, December, 1882.

practised, removing any remaining neoplasms. Particular attention was requested to the healthy condition presented by the vocal cords, there being no alteration of color, diminution of lustre, abrasion of surface, or impairment of movement perceptible. The writer attributed the satisfactory state of the patient to the spray of absolute alcohol and the employment of the quarter circle tube, which latter he considered less liable to produce tracheal disturbance than any of the many other makes in general use. The tube has not been withdrawn and good voice is produced.

(*b*) A female patient, aged 20, was first seen in October, 1885; complained of loss of voice, hoarse, and painful cough, and great general debility. The larynx was found to be intensely congested as also the traches, which latter was of a raw-beef, purplish hue. The vocal cords were rough, granular-looking and swollen, showed no loss of surface, and there were no growths present. The case was treated locally by astringents, etc., until May, 1886, with little, if any, improvement, when attendance ceased, owing to the writer's absence in Germany.

In September, 1886, when the case was again seen, extensive papillomata of large size were found springing from the vocal cords in all directions and from the epiglottis. These growths were removed at two sittings, when local treatment was again resumed, with the satisfactory results demonstrated.

(*c*) A lady, aged 24 (a private patient), was referred by Dr. James Stewart of Pictou, Nova Scotia, in August, 1883, and so closely resembles the preceding one in several important particulars, that, although she could not be induced to be present, the history was recorded. When first seen in August, 1883, there was aphonia, or more correctly, dysphonia only. The history given was that of ordinary cold, and had so continued without improvement for two years. On laryngoscopic examination the vocal cords were thickened, red and granular-looking; there were no growths present. Local applications of a very thorough nature were employed over a period of two months, with but little benefit. In September, 1886, the patient, who meantime had passed through a number of hands, placed herself for the second time under treatment. On examination, papillomata were found on the laryngeal face of the epiglottis, and the vocal cords were completely obscured from view by them. There was now complete aphonia, the breathing was much embarrassed, and coughing was almost incessant. The trachea presented an appearance such as described in the preceding history. The cords also showed at such points along their edges as were visible evidence of erosions and irregularities of surface. After the removal of these neoplasms by means of cutting and crushing forceps, cold iron snare, and V. Schrötter's guillotine, for no one method was in itself sufficient, a very unsatisfactory state of the vocal cords was found. Under local applications of powerful astringents, etc., improvement followed, and a very fair quality of voice has been established.

In the two latter cases nasal respiration was very much impeded, and it was only after the reduction of the hypertrophied turbinated tissue and the restoration of healthy nasal respiration that the local medication of the larynx showed any good result. This fact should not be lost sight of in the treatment of all chronic laryngeal disease. These were at first cases of chronic catarrhal laryngitis, and if nasal hypertrophies had been at first removed, convalescence would most probably have resulted without the transition to papillomata having first to be undergone. In this respect papillomata should form no exception to all other laryngeal conditions, and the dependence of a healthy larynx upon normal nasal respiration cannot be too strongly emphasized. The growths were examined by Dr. Wyatt Johnston, and on section were seen to be radiating papillæ covered with a thick layer of epithelium and having vessels in the centre. No hyperplasia of submucous tissues and no lymphoid nodules were to be seen. The epithelial cells in *c* were larger and more loosely arranged than in *b*.

Dr. Major also showed the following instruments :—

1. An improved nasal traction snare and écraseur.
2. A nasal spud or denuder.
3. An improved nasal écraseur.
4. A laryngometer. A laryngeal mirror engraved on its reflecting surface with a scale for the purpose of measuring movements or spaces in the larynx or composing them relatively.

The nasal snares are both angular, and among other improvements introduce a novel feature in a revolving wheel or pulley placed at the angle of junction of the canula with the shank over which the wire plays, thus reducing friction, increasing

power and imparting strength to the instrument at its point of greatest weakness. The mechanical principal involved requires no vindication.

Perforation of the Gall bladder.—Dr. W. G. JOHNSTON gave an account of an autopsy he had performed for Dr. R. P. Howard. The abdomen was found distended, panniculus and omental, fat excessive. The abdominal cavity contained several quarts of thick sero-fibrinous fluid mixed with bile and of a deep brown yellow color, not fœtid. (A small incision made by undertaker for injecting a small quantity of preservation fluid was found in left loin. This fluid, readily recognized by its aromatic smell, was not found in general peritoneal cavity.) The coils of intestines glued together by recent adhesions formed numerous sacculi. In the right hypochondrium the hepatic flexure of the colon was found imbedded in a mass of firm old adhesions, attaching it to the lesser omentum and tissues about gall bladder, which could not be seen till adhesions were dissected off. Near the neck of the gall bladder a small orifice was found, through which thick greyish-brown bile was escaping. On opening the gall bladder this orifice was valvular in character, its size that of a No. 4 sound, and it corresponded to a spot where the mucosa is eroded and the walls thinned. Elsewhere the walls of gall-bladder are flaccid, somewhat thickened and firm, and contained about an ounce of bile mixed with mucopus. Its cavity was divided into three sacculi by the contraction of fibrous tissues in the wall. The middle one of these contained a gall-stone the shape of a bean and about the size of a pigeon's egg; close beside this is a spot where the wall has been eroded, but was secured against the surface of liver by inflammatory fibrous tissue. In a pocket near the perforation, but not corresponding to it exactly, was a small gall-stone the size of a pea. The cystic and common ducts were thickened. Just at their junction, lying really within the cystic duct, but partly obstructing the common duct by its pressure laterally, was a gall-stone the size of a pigeon's egg. A probe could be passed through either duct beside it. No other gall-stones in peritoneal cavity. Duodenum contained gray, clay-colored fæces, but bile exudes from the papilla on pressure. No signs of bile anywhere in intestines. Some slight intestinal catarrh. Liver a little fibrous and fatty. Other organs normal.

DR. HOWARD, in reporting the case, said its clinical features were of unusual interest. It was a cace of acute general peritonitis from perforation of the gall-bladder in a man aged 65. The patient was in good health at the beginning of the month. After four days of epigastric pain, never very severe, patient become jaundiced. Next day there was vomiting; pain in the epigastrium became more marked, especially in region of gall-bladder.

There was not very marked tenderness on pressure, but pain and symptoms of peritonitis extended over entire abdomen. Pain was not sufficient however, to necessitate an opiate. The tempera, ture on the morning of the sixth day was 100. 8° and 99. 5° at night; on seventh day, 100. 6°; eighth day 100°; and ninth day. 98.8°. The abdomen gradually became enlarged and tympanitic, but still no severe pain. After third day jaundice gradually increased. The diagnosis was very obscure. Cancer could be excluded, and as there was no history of gall-stones, a diagnosis of peritonitis spreading from the gall-bladder was made. It was strange that the escape of so irritating a fluid as the contents of the gall-bladder should have caused no collapse or severe pain. No perforation was diagnosed. It is an important question for consideration whether surgical interference in this case would have availed anything. The gall-bladder was so deeply imbedded in old adhesions that it would be hardly possible for a surgeon to have reached it. The gradual invasion of the symptoms was probably due to the slow oozing out of the contents of the gall-blader.

Dr. WILKINS asked if non-action of bowels in such a case would not be due to spasm of the muscular coat owing to the peritonitis, and whether an opiate treatment would not be most successful in relieving constipation.

Dr. HOWARD stated that the treatment had been mainly an opiate one.

Dr. GEO. ROSS had been struck, on seeing the the case, by the absence of the usual marked features of acute peritonitis, the obstinate constipation and suggested intestinal obstruction. He called attention to the fact that severe acute peritonitis may co-exist with a normal or only subfebrile temperature, the idea that acute peritonitis necessitated a high temperature being quite fallacious.

Dr. SHEPHERD thought that surgically nothing could have been done. The anatomical features of the case placed it out of the reach of surgical interference. Excision of the gall-bladder could

not have been successfully performed, owing to mechanical difficulties.

Dr. R. J. B. HOWARD suggested that perhaps in a similar case simple ligature of the cystic duct, by preventing the passage of bile from the liver to the gall-bladder, would change the discharge of acrid bile into the peritoneal cavity to one of a little harmless mucus.

Dr. WILKINS asked when the perforation probably took place.

Dr. HOWARD, in reply, said the perforation probably occurred early. There was nothing in the history of the case to indicate sudden rupture.

Bile entered peritoneum gradually.

Dr. A. F. SCHMIDT showed a case of *cancer* of *stomach*, apparently the whole stomach was transformed into cancerous tissue. There was also an extensive diffuse cancer of the head of the pancreas. The tissues in the neighborhood were extensively infiltrated. The liver contained numerous soft secondary nodules. Bile duct slightly obstructed. Secondary cancer of lungs.

Dr. JOHNSTON thought it difficult to say whether the disease originated primarily in stomach or in pancreas. No definite ulcer nodule, looking like a starting-place, could be discovered. The surrounding infiltration might afford some clue, as this infiltration was much more directly continuous with the growth in the pancreas than with that in the stomach.

Cancer of Œsophagus.—Dr. Ross showed an œsophagus the seat of malignant disease. The symptoms during life were marked and gradually increasing difficulty in deglutition. The stricture admitted a No. 3 bougie. There was no marked emaciation. The patient had died suddenly and unexpectedly, death being due to the bursting of a cerebral abscess. There were no symptoms of brain disease.

Autopsy by Dr. Johnson.—Epithelioma of œsophagus, forming ulcerated surface five inches long. Calibre of gullet not much narrowed. In brain, an abscess was found just above the roof of right lateral ventricle, at its anterior and external part, anterior to the motor area. This had burst into the lateral ventricle. Abscess appeared chronic in nature; did not appear to be connected with the cancer.

Stated Meeting, December 3rd, 1886.

J. C. CAMERON, M.D., PRESIDENT, IN THE CHAIR.

Csae of Leukæmia.—Dr. Stewart showed a man aged 32 years, who is suffering from enlargement of the cervical, axillary and inguinal glands. The patient, who is a farmer, first noticed a swelling under his left lower jaw nine months ago. The glands along the sterno-mastoids and above the clavicles are very much enlarged. The swelling is painless, and in some parts has a semi-fluctuating character. Several glands in both axillary regions are the size of hen's eggs. The groin glands are much enlarged also. The patient also complains of weakness, palpitation and breathlessness on exertion. He is decidedly anæmic. He never had any previous illness. Has lost three sisters from pulmonary consumption. There is no evidence of enlargement of the bronchial or mediastinal glands. His breathlessness can be accounted for by his anæmia, and the pressure exerted by the enlarged cervical glands on the trachea. There is no enlargement of the thyroid glands or tonsils. No pain, tenderness or swelling over any of the bones. *Blood*—Dr. Wyatt Johnston kindly undertook the examination of the blood. It is as follows: "Red corpuscles are well formed, uniform in size, and nummulate normally. White are considerably increased in number. There are numerous small colorless cells (blood plaques?). On staining the blood (Ehrich's hæmatoxylin eosin method), the leucocytes are seen to be mostly small and with mono-morphic nuclei. A very few eosinophile cells and one or two nucleated red corpuscles noticed, but both these elements are very infrequent. By Gowers' hæmocytometer, red cells 3,570,000 per c.m. (71 per cent. of normal); white cells, 200,000 per c. m. Proportion of white to red, 1 20 (an increase absolutely of 13 times and relatively of 15 times the normal). Hæmoglobin index 58 per cent." *Spleen*—There is a considerable increase in the size of the spleen, its vertical dullness extending from the upper border of the ninth rib downwards, a distance of five inches. Its surface is smooth. *Liver* is also somewhat enlarged, its vertical dullness (in the line of the nipple) reaching from the fifth rib to two inches below the ribs, a distance of six inches. During the last two or three weeks he has been complaining of a dull, aching pain over the lower part of his back. There is no pain or œdema of the lower limbs. Nothing abnormal to be detected in the abdominal cavity.

Remarks.—The case presents some difficulty in diagnosis. Its marked clinical features are the hyperplasia of the superficial lymphatic glands

So marked is this enlargement that at first sight one would be inclined to at once come to the conclusion that it is a case of Hodgkin's disease. The very considerable increase in the number of the white-blood cells, together with the increase in size of both spleen and liver, make it more probable that the case is one of lymphatic leukæmia. Osler, in his article on leukæmia, in "Pepper's System," says that when the white cells increase to such an extent as to bring about a proportion of one white to fifty red, then we have to do with leukæmia. He draws particular attention, however to the variableness of this proportion from day to day. A case, therefore, might be diagnosed one day as lymphatic leukæmia and another day as Hodgkin's disease, if we were to rely solely on the proportion which the cellular elements of the blood bear to each other. There are cases, and the one exhibited belongs to this class, where it takes some time to come to a conclusion whether we have to do with lymphatic anæmia or Hodgkin's disease. Is it possible that a case of Hodgkin's may end in what we call lymphatic leukæmia.

Dr. BELL referred to cases which he had seen in hospital. Cases of Hodgkin's disease lived many years; those of leukæmia died within two years. He thought the present one a case of leukæmia in an early stage.

Dr. SHEPHERD spoke of difficulty in diagnosing between Hodgkin's disease and scrofulous glands of the neck.

Dr. A. LAPTHORN SMITH referred to a case of *Torticollis*, previously shown, saying that a history of syphilis had been found. He also exhibited a case of doubtful psoriasis following vaccination. The eruption came out a year ago, soon after the patient had been vaccinated.

Dr. SHEPHERD regarded the case as one of eczema.

Dr. MILLS said that the case was of interest, because of the recent evidence that lymphatic glands are producers of red blood corpuscules, and this case would support it from the pathological side.

Case of Leprosy.—Dr. SHEPHERD exhibited the case, occurring in a man aged 19, a native of Trinidad. He had a well-marked tubercular eruption on the face and hands, and a copious macular eruption on the legs and buttocks. The maculæ were of the size of ten cent pieces, of a bronzed color, and showed some infiltration. The fingers of both hands were crooked and swollen, and patient could not use them. The claw-like appearance of the hands was very marked. Large bullæ were seen on the hands and wrists, which when evacuated left troublesome ulcers. The patient's face was very characteristic of leprosy, the thickened tissues, dull expression, and tubercular nodules, also loss of eyebrows, and injected conjunctiva, gave the individual an appearance *sui generis*. There were also a number of anæsthetic patches, viz., on the inside of each thigh with atrophy of the skin on right elbow, and on dorsal surface of fingers and toes. The anæsthetic patches have only appeared within the last year. The right ulnar nerve could be easily felt, and was slightly enlarged. The mucous membranes were not affected. The patient had been in this country four years and had been treated for syphilis; he came to Canada by the advice of physicians who thought his disease would improve in a colder climate. He was affected with the disease two years before he left Trinidad; the eruption was then principally on the chest, and disappeared with the use of chaulmoogra oil internally and externally. He said the disease is common in Trinidad, and exists chiefly among the Portuguese. There was no history of leprosy in his family. Dr. Wyatt Johnston had excised one of the tubercles on the nose and had obtained from it the bacilli of leprosy in abundance, a beautiful preparation of which was shown.

Dr. MILLS said that in the skin, as in the eye, it had been demonstrated that blind spots occurred, and thought it would be interesting to see if these corresponded with the anæsthetic areas in leprosy and in other pathological conditions.

In answer to Dr. SMITH as to whether the disease was contagious, Dr. SHEPHERD said that, like syphilis, it was inoculable, but not contagious. Leprous men have lived for twenty years without conveying it to their wives. It was hereditary, usually skipping a generation. Great diversity of opinion exists as to the contagiousness and the heredity of the disease. This is well shown in the reports from the different leper stations.

Cases of Cancer of Pylorus.—Dr. JOHNSTON showed two cases. The first case was from a woman aged 49, a patient of Dr. T. A. Rodger. She always was dyspeptic. A distinct tumor was felt in right hypochondriac region about a year ago. Symptoms of gradual exhaustion were experienced, accompanied with dilatation of the stomach. At the autopsy, the pylorus was found involved

for 2½ inches in a scirrhus growth, lumen still admitting little finger readily; three small ulcers with infiltrated edges were situated near the ring; hyperplasia of mucosa in region of pylorus to a distance of five inches fron ring; walls of stomach hypertrophied; cavity not markedly dilated; no infiltration of tissues in neighborhood; no secondary growths anywhere. The second case was from a man aged 50, a patient of Dr. Geo. Ross. The stomach was enormously dilated; pylorus was involved in a dense cancerous mass, wall greatly thickened, and lumen narrowed, only admitting a No. 8 catheter; a little infiltration in neighborhood, but no compression of bile ducts and no secondary cancer; walls of stomach at fundus not so thick as in preceding case.

Dr. Ross stated that his patient's symptoms were those of excessive dilatation of the stomach, requiring the stomach tube to get relief. At the autopsy, a quantity of fibrous pulp was found within the stomach, being the remains of some oranges patient had eaten some time previously. He thought the clinical distinction between this case and the preceding one was accounted for by the much greater degree of constriction at pylorus.

Dilated Stomach.—Dr. Bell reported a case of dilatation of stomach caused by fibrous constriction of an inflammatory origin at pylorus. An abscess filling lesser omentum had burst and caused fatal general peritonitis. It communicated with the stomach through an ulcer in the pylorus. He thought the disease began as the result of an injury to abdomen received in a fall eighteen months before, and that the patient's life would have been saved by an operation proposed to him, but refused.

Bifid Meckel's Diverticulum.—Dr. Johnston showed a case of Meckel's dirverticulum ilei having a bifid extremity. He did not know of its having any anatomical significance.

Dr. Shepherd stated that this was the first example he had seen of a bifid Meckel's dirverticulum.

Extreme Dilatation of the Heart.—Dr. Johnston also exhibited a specimen of extreme dilatation of the right side of the heart, from a man aged 40. The right chambers contained 27 ounces of blood and a soft clot. Tricuspid orifice measured 9 mm. in circumference. Pulmonary orifice slightly dilated; valve competent; other valves normal. Dilatation of left ventricle only trifling. No hypertrophy of heart wall and no marked degeneration of the muscle. Patient had also right-sided chronic tubercular pleurisy with the dense fibrous exudation and acute uniform miliary tuberculosis of both lungs in an extreme grade in connection with the arterioles. The case was considered puzzling as to causation. No caseating mass was discovered anywhere, and no communication of any such mass with the veins or thoracic-duct. The adhesions could not embarrass the circulation in any way, unless by interfering with the contraction of the right auricle. He thought the obstruction to pulmonary circulation in arterioles would have aggravated the dilatation of the right heart.

Dr. Geo. Ross said the clinical history was that of an acute pleurisy four months ago not well recovered from. A prominent feature was the marked heaving pulsation in epigastrium.

Dr. Stewart thought that the above explanation did not account for so extreme a dilatation. The patient might previously have had parenchymatous changes in heart muscle which were not now to be recognized.

Puerperal Cerebral Embolism.—Dr. Ross exhibited specimens from a case in which an abortion was followed three months ago by embolism of left Sylvian artery, causing right hemiplegia with aphasia. A presystolic murmur existed. The autopsy by Dr. Johnston showed extensive warty vegetations, but no sclerosis of mitral valve. The left Sylvian artery was obliterated and transformed into a fibrous cord. There was softening of the left corpus striatum and interior capsule.

Dr. Shepherd thought the embolism was excited by fibrous condition of the blood at parturition. He had reported a similar case to the Society, with embolism at three successive labors.

Tuberculous Disease of Bladder and Kidney.—Dr. Johnston exhibited for Dr. Bell specimens from a case, a boy aged 19, where a cystotomy wound had remained unhealed. Death followed in one year with symptoms of pyelo-nephritis. Autopsy showed old tubercular disease of right kidney and ureter; the bladder was nearly free from disease, but prostate was extensively involved. The granulations of the wound were tubercular, and sections showed tubercle bacilli in them. The other kidney and ureter were healthy. The lungs showed acute tuberculosis.

Dr. Bell said the patient had chronic disease of knee-joint, apparently tubercular.

Tait's Operation.—Dr. Wm. Gardner exhibited the uterine appendages removed from two patients during the past three weeks. In the first case the ovaries were cirrhotic and densely adherent behind a retroflexed uterus. Free bleeding followed the separation of the adhesions, treated by the drainage-tube. The patient had been an invalid for fourteen years from pelvic pain and profuse and painful menstruation, with severe headaches. She is slowly recovering. In the second case, both ovaries were enlarged and cystic, the left the size of a hen's egg; no adhesions. The symptoms were profuse, and painful menstruation and constant pelvic pain. Patient recovered without a single bad symptom. In both cases the abdominal incision was an inch and a half in length only.

Dr. Gardner also reported that a lady, on whom he had performed ovariotomy in the fourth month of pregnancy, had been confined a week ago, at full term, of a male child weighing ten pounds. The patient was the mother of two children, and had suffered for many years from cough, hæmoptysis, and purdent expectoration. The labor of six hours' duration. It was followed by inertia of the uterus, with alarming hemorrhage. She is now recovering without any complication. The cough and expectoration continue. Dr. Gardner remarked that operative measures were much preferable and safer than the old treatment of tapping the tumor or bringing on premature labor.

Dr. Trenholme asked for the symptoms which led to the operation.

Dr. Gardner replied—Intense pain in pelvis and back, vomiting, and headache. Last pregnancy fourteen years ago, and suffered ever since. Patient was very neurotic.

Dr. Mills read a paper upon "The Cause of Heart-beat and other Problems in Cardiac Physiology."

Dr. Armstrong congratulated Dr. Mills upon having performed so important a service to science in doing this original work, and also congratulated the Society in being able to receive so valuable a paper.

Dr. Stewart had until now always cherished hard feelings against Mills, Gaskell and the others who had recently overthrown the old cardiac physiology which had appeared so complete. In studying the action of drugs the new researches had had a most unsettling effect upon his views; but he thought that when the theories advanced by Dr. Mills were formulated the matter would be put on a sound and at the same time simple and comprehensible basis.

Progress of Science.

ON THE USE OF ARSENIC IN CERTAIN FORMS OF ANÆMIA.*

By William Osler.†

In an address last year, Dr. Wilks remarked that in therapeutics we do not so much need new remedies as a fuller knowledge of when and how to use the old ones. I do not know a more striking illustration of this than is afforded by arsenic, a good old remedy, for which an almost new use has arisen in certain cases if pernicious anæmia. The attention of the profession was directed to the subject by Bramwell in 1877, and although various reports bearing witness to the value of this drug have appeared from time to time, the knowledge of its efficacy does not appear to be very widespread, and there are still points in connection with its employment upon which we need information. These, I trust, discussion may bring out, and render clear the direction which future observation should take.

In treating a case of anæmia, it is of the first importance to ascertain, if possible, the cause. For convenience, and until the present complex pathology is simplified, we may classify the anæmias into secondary and primary; the former induced by causes acting upon the blood itself, the latter the result of disturbance in the blood-making organs. This distinction, not always clear, serves to separate two clinical and pathological groups of cases.

The secondary anæmias are the most common, and arise from a variety of causes, as hæmorrhage, prolonged drain of albuminous material in chronic disease, and the action of toxic agents in the blood. In very many of these conditions a return to the normal state follows naturally upon removal of the cause, and the regeneration of the corpuscles may take place with extraordinary rapidity, as after a copious bleeding or a sharp fever; but, as a rule, iron in some form will be found useful or indispensable. In three of these secondary anæmias I have found arsenic very beneficial.

1. *The anæmia of Heart-Disease.*—In chronic valvular trouble we not infrequently meet with an impoverished condition of the blood, which materially aggravates the cardiac distress. The comfort of such patients is in direct proportion to their corpuscular richness, and without any apparent

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increase in the valve mischief, a reduction in the ratio of the corpuscles is followed by shortness of breath, palpitation, and signs of heart-failure. The value of iron in this condition is well known, and its combination with digitalis a universal practice. Arsenic is also indicated in these cases, particularly in children, or if, as sometimes happens, iron does not agree. In June of this year I saw a lad J. W., æt. 14, who had had chronic valve-disease for four years. He had been wintering in the South, and went afterwards to the Arkansas Hot Springs. When I saw him the anæmia was very marked, and he suffered from breathlessness on the slightest exertion. There was no cardiac distress, and the compensation was not seriously disturbed. At the Hot Springs he had several chills, with fever, for which he had taken quinine. He was ordered Fowler's solution of arsenic, beginning with M iii, three times a day, and increasing to M vi, if well borne. He had been taking an iron and strychnine pill for several weeks, and had with him a boxful, which he was advised to finish. Digitalis was prescribed, but was not to be taken unless there were signs of heart-failure. The diet was carefully regulated. The lad improved rapidly, and within six weeks had a good color, and had gained several pounds in weight. He had not needed the digitalis. The arsenic was well borne. The improvement had continued on the 3rd of this month. Possibly here there was a malarial taint but, in any case, if medicinal agents had anything to do with the rapid improvement, the credit is due to the Fowler's solution.

2. *In Malarial anæmia.*—The value of arsenic in chronic ague poisoning is so well recognized that I need scarcely detain you with the narration of cases in support. There have been several at my clinic during the past year in which the improvement in the blood condition, as tested by the hæmacytometer, has been very remarkable. One case in particular from Cape May, I may refer to, as the patient, with enlarged spleen, had on two occasions hæmorrhage from the stomach. The arsenic in this case was pushed for several months in increasing doses. At one time he took Mxxxvi of the Fowler's solution daily. When last heard from, in July, he was at work, and had gained in flesh and strength. On May 12, the date of the last blood count, the percentage was over eighty (it had been scarcely fifty), and the spleen had diminished materially in volume. In certain of these cases the ratio of the corpuscles may increase rapidly without any essential change in the volume of the spleen. In the case of M.D., a girl of 15, who has been in the University Hospital on several occasions for the past two years, the arsenic, which was very persistently employed, does not appear to have reduced the spleen in the slightest degree, and yet under its use the corpuscles rose to eighty-five per cent. In this instance, with a history of malaria, there is evidence also of congenital syphilis, to which may possibly be due the splenic enlargement. Injections of arsenic into the substance of the organ were tried without benefit.

3. *Certain Anæmias of Gastric Origin.*—As a tonic in debilitated states of the stomach, arsenic has long been a favorite remedy with many practitioners. It is sometimes also of great service in the anæmia of chronic gastric catarrh, particularly in alcoholic patients. A good illustration of this was under my care at the Philadelphia Hospital this spring. W. G., aged 25, waiter, hard drinker, history of dyspepsia for several years. Admitted April 5 with anæmia and attacks of giddiness. Ill for ten days; vomiting, pain in stomach, and fainting spells on attempting to stand. Had been failing in strength for some time and getting pale. Had suffered from palpitation, and said he had vomited blood. He was profoundly anæmic, and could not stand without danger of fainting. Tongue coated; great irritability of stomach; vomiting on the slightest provocation; great throbbing of abdominal aorta. He was kept at rest, given a milk diet, and Fowler's solution in 3 drop doses. The red corpuscles were not more than twenty-five per cent., and the coloring matter about the same. The improvement was rapid, and by the 21st the corpuscles had risen to over forty per cent., and the gastric irritation had almost disappeared. The arsenic was well borne, and was gradually increased to Mvii t. i. d., and on May 4 he was ordered small doses of nitromuriatic acid. On May 17 he left the hospital with a fair digestion and, for him, tolerably good color. On June 24, when re-admitted with extensive pleuro-pneumonia, he stated that he had recovered strength rapidly, and had been at work. Possibly in this case, there was ulceration of the stomach in addition to the chronic catarrh; but, whatever the condition, it was one in which the arsenic seemed to be highly beneficial, and, as he received no other medication, we may reasonably attribute to it the stimulation of the blood-making function. As we shall see, there are anæmias of gastric origin in which this drug is powerless. There are some of the secondary anæmias which have, in my experience, been apparently benefited by the use of arsenic.

Turning now to the primary group, we have here again for convenience to make a division of the cases. There is, first, a large section of what may be called cytogenic anæmias, in which the reduction and alteration in the corpuscles is associated with evident changes in the hæmatogenous tissues, —the spleen, lymph-glands, and bone marrow. Sometimes these changes are accompanied by an increase in the colorless corpuscles of the blood; and, depending on the organ involved, we then speak of splenic, lymphatic, or medullary leukæmia. If there is no marked increase in the white corpuscles we call the cases splenic anæmia, lymphatic anæmia (Hodgkin's disease), and medullary anæmia. The pronounced leucocytosis in certain of the cases, which gives a special character to the blood, is probably not such an

important factor as we have hitherto supposed, and there are such insensible gradations between the cases that in a strict classification they may be appropriately grouped together. Secondly, there is the curious primary anæmia known as chlorosis, characterized by well-marked etiological and anatomical peculiarities; and, thirdly, we have the much-discussed affection, pernicious or essential anæmia.

The anæmias of this primary group offer a remarkable therapeutic study, embracing cases of the most hopeful and the most hopeless character. A clearer knowledge of the etiology and pathology of certain of these forms may give a clue to lines of treatment more fortunate than those we now possess; for, if we except chlorosis, the majority of the cases of this class of anæmias prove fatal. Leukæmia, splenic anæmia, when non-malarial, Hodgkin's disease, are considered incurable affections, and very many of the cases of pernicious anæmia prove obstinate to all treatment.

The relation of arsenic, as a remedy, to this group of primary anæmias is worthy of our closest study, more particulaly as of late years remarkable results have been reported from its use. Chlorosis may here be excluded from our consideration, as it would only be in a strangely obstinate case that a practitioner would require to employ arsenic. The specific action of iron in increasing the defective hæmoglobin of the corpuscles, and doubtless, also, in stimulating the formation of new ones, is one of the few instances in therapeutics in which definite tissue-changes, under the influence of a drug, may be followed with scientific accuracy from day to day and from week to week.

In *leukæmia* and *Hodgkin's disease* arsenic has been extensively tried, occasionally with temporary success. We must bear in mind in these affections that there are natural periods of improvement without any special medication. I have met with this in leukæmia, and it must be taken into account in our estimation of the effect of a remedy. Personally, I have not seen any benefit from the use of arsenic in this disease. It was given in several of the eleven cases which I saw in Montreal, all of which were fatal. In Hodgkin's disease the report is more favorable. In 1883 I had two cases both in women, in which the large glands of the neck and armpits reduced materially under the prolonged use of Fowler's solution, but I do not know the subsequent history of the cases. Several writers have reported most satisfactory results. Karewski* had three recoveries, and of eleven cases treated at the Stockholm Hospital five were benefited.† The persistent use of it in full doses for many months is probably the most efficacious remedy we possess in this disease.

In cases of *splenic anæmia* of non-malarial origin, I cannot say that I have seen any special benefit from arsenic.

We come now to *pernicious anæmia*, in which so much has been gained by the judicious use of this drug. Pernicious anæmia includes cases of very diverse etiology. Any severe anæmia tending to a fatal termination may well be termed progressive and pernicious. In a considerable proportion pregnancy and parturition appear to have been determining factors, while others can be directly traced to defective food, as in many of the Zurich and Berne observations. Excluding these, we have a group of cases of which the etiology is obscure, and to which, in our present knowledge, the terms *idiopathic* of Addison and *essential* of Lebert are applicable. Every year, however, we are reducing the number of cases which we can strictly call idiopathic. It is reasonable to suppose that the extensive changes in the bone marrow found in certain instances are directly related to the profound disturbance in blood formation, just as is the case in hyperplasia of the spleen or of the lymph-glands. An anæmia medullaris is now very generally recognized. Then there are the cases of pernicious anæmia in which the primary disturbance seems to be in the gastro-intestinal canal, and the condition of the blood the direct consequence of the impaired nutrition. There remain cases in which none of these conditions prevail, and neither during life nor after death do we find any clue to the origin of the anæmia. To such, for the time, the designation idiopathic is applicable. Clinically, it may be impossible to distinguish between these various forms, and the etiology is often very obscure and gives us no help. The cases which come on during or after pregnancy, or which result from inanition, are readily recognized, and offer, as a rule, a more hopeful prognosis; but we cannot yet with any accuracy separate during life the cases in which there is atrophy of the mucous membrane of the stomach, or extensive medullary changes, from those in which these conditions are absent. A more careful study may in the future enable us to do so, and I have laid stress upon these differences in etiology and pathology, because in them will possibly be found the explanation of the success or failure of certain remedies.

Prior to 1877 arsenic was not systematically employed in pernicious anæmia, and to Bramwell is undoubtedly due the credit of its introduction. Neither Müller‡ nor Eichorst,§ in their elaborate monographs published in 1877 and 1878, speak of its use. Padley,‖ in an interesting review of the question, has carefully analyzed the cases in which arsenic was not employed, and finds that of forty-eight, forty-two were fatal, while twenty-two cases treated with arsenic sixteen recovered, two improved, and four proved fatal; and he remarks, that "in the whole list there is not, with one exception, a single authentic case of recovery in

* *Berliner Klin. Wochenschrift*, 1884, 17 and 18.

† Abstract in Year Book of Treatment for 1884.

‡ De Progressive Perniciose Anæmia. Zurich, 1877.

§ De Progressive Perniciose Anæmia. Leipzig, 1878.

‖ *Lancet*, 1883, ii.

which arsenic did not form the chief part of the treatment." Certainly the reports of this affection since 1880 have been much more encouraging, and it need not necessarily be regarded as "almost invariably fatal," to use the words of a leading text-book. Of three cases of pernicious anæmia which I have seen this year two have already proved fatal, and one in a fair way to recovery.

Case I.—A man, aged 42, I saw with Dr. Henry. We reported it in full in the April number of the *American Journal of Medical Sciences*, and it is remarkable as an instance of pernicious anæmia, with advanced atrophy of the mucous membrane of the stomach. Arsenic was given during the course of the disease, but not for any length of time, as it seemed to bring on diarrhœa.

Case II.—A woman, aged about 45, I saw with Dr. Weir Mitchell on January 20. She had been the subject of dyspeptic attacks for some years, and had become very pale, and during last year the anæmia reached an extreme degree. With rest, systematic feeding, iron, and arsenic she improved, and was able to go home and attend to her household duties. I saw her in January on her way South. She returned in March very much worse; was again placed on the plan of treatment which had proved so successful in the first attack, but the stomach was so irritable and the digestive power so enfeebled that she sank, and died on the 18th of April. The improvement in her first attack was attributed by Dr. Mitchell to the careful feeding and rest as much as to the medicine.

Case III.—An active business man, aged 43; seen March 4. History of dyspepsia, and for the past six months failure in strength. Shortness of breath on the slightest exertion, and at times attacks of agonizing pain at the heart resembling angina. He had not lost much flesh; indeed, as is usual in these cases, the subcutaneous fat was well developed. When first seen, the anæmia was marked; lips and tongue very pale, and sclerotics pearly. The general surface did not look so pale, on account of his dark color and a decided saffron-yellow, sub-icteroid tint of the skin. The temperature was a little elevated; pulse 100, and of moderate volume. With the exception of heart-murmur, there were no symptoms elicited in the examination of thoracic and abdominal viscera. The blood showed in a marked manner the corpuscular changes of advanced anæmia. The blood count could not be made at the time, but when I next saw him, two weeks later, there were only 700,000 red corpuscles to the cubic millimetre, and the color presentage was only about twenty. He was put to bed, absolute rest, given a milk diet, ordered massage once a day, and as medicines bismuth and carbonate of sodium, with Fowler's solution Mv, three times a day, to be increased one minim daily at the end of a week. He had been taking, by the advice of his physician, an elixir of iron and strychnine, which was continued. For two months there was not much apparent change, though the ratio of the colored corpuscles increased to over 1,500,000 per cubic millimetre. The arsenic had been pushed to 15 drops three times a day, when puffiness of the eyelids and forehead came on, and it was omitted for a week, and started again with Mv. On reaching Mxiii a slight red rash appeared, and it was stopped, and, after beginning at Mv again, he reached Mxx t. i. d. On these large doses he seemed to improve more rapidly, and he bore them for two weeks or more, when gastric irritation supervened, with diarrhœa. The drug was then stopped for ten days, and pills of $\frac{1}{100}$ of a grain of arsenious acid ordered. On January 31 he was allowed to get up. By June 13 he was able to move to Cape May. The blood condition has rapidly improved, and at the last count the corpuscles were nearly 4,000,000 to the cubic millimetre. When seen on September 7 he looked remarkably vigorous, had a good appetite, was at business, and feeling very well. It would be incorrect to attribute the success in this case entirely to the arsenic, but rather to the plan of treatment, in which it was a very important factor. It will be found, I think, that absolute rest in bed, with daily massage, and the strictest attention to feeding, are most important features in the successful management of these cases.

Arsenic has been spoken of as a specific in pernicious anæmia. This is a mistake. The disease, as I have indicated, is so varied, and results from the operation of such diverse causes, that we cannot expect any one remedy to be uniformly active. In a majority of the cases iron is useless, but it sometimes succeeds after arsenic has failed absolutely. Such a case was reported by Finlay* last year, which was cured by iron after a thorough and but ineffectual use of arsenic. I do not think we understand fully the conditions in which it is most serviceable, and for the time we must be content to employ it empirically, on faith of the success which has attended its administration in so many cases. Ultimately, we may hope to be able to discriminate between the cases which call for iron and those in which arsenic is indicated, and with this object in view the cases which come under observation should be carefully studied.

Mode of Administration.—I usually give the liquor arsenicalis (liquor potassii arsenitis), beginning, in an adult, with Mv three times a day. Occasionally this is found too much, and I reduce the amount to 2 or 3 minims. After ten days, if well borne, I order an increase of a minim each day, so that by the end of the second week the patient is taking 10 or 12 minims three times a day. This is kept up for a week, and then gradually increased until the physiological effects are obtained. The amount which will induce these varies with different individuals, and those who bear it best seem to improve the most rapidly. I have thought sometimes that the small doses are not so well borne as larger ones, and are more likely to cause

* *Lancet*, 1885, i.

gastric irritation. Young people bear it remarkably well. Within the physiological effects there is no special limit to the quantity, and, as in chorea, I make them my guide in the administration. A very important point is the continuous use for many weeks or months, omitting for a few days if unpleasant effects arise. Even after apparent recovery I advise the continuance of the drug. When the liquor arsenicalis is not well borne, the arsenious acid in pills may be tried, or the solution may be given hypodermically. In these cases of severe anæmia I never care to use hypodermic injections systematically, as I have seen ecchymosis of the tissues follow, and in several instances distressing small abscesses. By the rectum, it is usually well borne.

The three points I would indicate for this are :—

1. In what secondary anæmia is arsenic beneficial, and under what conditions is it preferable to iron?

2. In pernicious anæmia what cases are benefited by arsenic? What by iron? How shall we frame rules for our guidance in the matter, or must we still work empirically?

3. In the administration of arsenic, what is the best form and method?—*Therapeutic Gazette.*

CONTRIBUTIONS TO PRACTICAL SURGERY.

By Prof. John Chiene.

Amputations of the Hand. In partial amputation of the fingers and thumb, utilize any available skin for the flaps. Let your main object be to leave as long a stump as possible; do not sacrifice length in order to follow any special method of amputation. Let the cicatrix be, if possible, posterior, using the tissue on the anterior aspect of the digit for the principal covering to the divided bone. When the injury or disease is such as to necessitate amputation at a higher level than the attachments of the flexor and extensor tendons to the second phalanx, is it right to go at once to the knuckle and perform complete amputation of the finger? If the tendons can be saved and attached to the bone then the first phalanx should be left. If this cannot be done, then amputate at the metacarpo-phalangeal joint.

In amputating a digit, or a digit along with a portion of its metacarpal, avoid, if possible, any interference with the palm of the hand; avoid a cicatrix in the palm; a cicatrix in this situation is apt to be tender, and this interferes with the grasping power of the hand.

In amputating a finger do not interfere with the breadth of the hand. In a case requiring removal of one or more metacarpals leave, if possible, healthy periosteum; new bone is formed, and a more useful hand is the result. Let this rule regarding the periosteum hold good, very specially in connexion with the metacarpal bone of the thumb. Any osseous projection at the radial edge of the hand is a point of attachment for the muscles of the ball of the thumb, and is of the greatest use as an opposing point to the fingers.

In patients in whom manual labor is their source of income, do not, in amputating the fore and little fingers, interfere with the heads of the corresponding metacarpals, if a sufficient covering can be obtained. In other cases, for the sake of appearance, the head of the metacarpal may be removed obliquely.

Take, if possible, your main flap in amputating any of the fingers from the flexor aspect of the finger. Do not approach the palm in your incisions. In the middle and ring fingers the best result—looking to use and not to appearance—is obtained in the following way: Enter the knife at the knuckle, carry it outwards and forwards towards the web until a point midway between the anterior and posterior aspects of the web is reached. Do the same on the other side of the finger; these two incisions form a right angle with each other. A flap is then made from the anterior aspect of the first phalanx. The finger is removed, and the flap is turned back into position, the apex of the flap fitting into the angle where the incisions begin over the knuckle. By this method, the incisions do not approach the palm, the breadth of the hand is not interfered with, and the resulting cicatrix is posterior.

In crushes of the hand save as much as possible; save a finger or a portion of a finger; save any part of the thumb; save any portions of the metacarpals. The most useless natural hand is more useful than any artificial substitute.

In *contractions of the palmar fascia* Busch's operation in severe cases affords the best result. In simple cases the subcutaneous division of the tense fibres is generally sufficient. It is to be remembered that there are two directions in which the contracted fascial fibres must be divided parallel to the skin surface, and at right angles to the skin surface; by the first, the fibres at right angles to the skin surface, which dip down between the flexor tendons, are divided; by the second, the longitudinal fibres of the contracted palmar fascia are divided.

Busch's operation consists in dissecting the contracted fascia from the flexor sheaths by a V-shaped flap, the apex of the flap looking to the wrist; the fingers are then extended, and the flap attached with horse hair stitches to the incision, while the opposing edges of the proximal portion of the raw surface are accurately stitched together. The result is a Y-shaped cicatrix, and an extended finger or fingers with no tendency to subsequent contraction.

In *wounds of the palm* the persistent hæmorrhage is often due to the palmar vessels being simply punctured, and not cut fairly across. Divide the artery wounded by deepening the accidental wound. Retraction of the wounded vessel takes place, and simple pressure is sufficient to arrest the hæmorrhage. Check the force of the blood flow by fully flexing the forearm on the upper arm with

a pad at the bend of the elbow. By these means the hæmorrhage is arrested; if it still persists, plug the wound in the palm; if this fails, tie the brachial artery.

Whitlow. In deep-seated digital inflammations over the first and second phalanges, the cause is either an inflammation of the flexor sheath, or it may have a periosteal origin. In inflammation over the anterior aspect of the terminal phalanx, the cause is periosteal, and the worst that can happen is necrosis of the terminal phalanx.

In all cases make your incision early, central and in the long axis of the finger. Relieve tension, and prevent spread of the inflammation from the flexor sheath on the finger to the common flexor sheath on the anterior aspect of the wrist. In periosteal cases early incisions prevent necrosis of the affected phalanx. Whitlows are infective conditions, and are due to a colony of micrococci. The periosteal whitlows are cases of acute suppurative periostitis.

Relieve the tension, and the evil effects of the pathogenic micrococci will soon subside; prevent sepsis caused by the entrance of septic organisms from the external air, and rapid healing will be the result. In patients who are liable to whitlows, as in people who suffer from boils and carbuncles, administer corrosive sublimate internally, it is a most powerful antifermentative.

In *inflammation of the common flexor sheath* relieve the tension by making an incision into the sheath in the forearm above the angular ligament. Take care and not injure in your incision the median nerve; adopt Hilton's method to avoid the risk. After opening the flexor sheath in the forearm, pass a curved probe-pointed bistoury from the wound under the angular ligament, divide it with the knife, and in this way the palmar tension is effectually relieved.

In *amputation* for injury or disease in the upper extremity, do not follow, at the cost of length, any special method of amputation; get your flaps as best you can, so as to obtain as long a stump as possible. The longer the stump the easier it is to fit on an artificial substitute. In severe injuries of the upper extremity in which an endeavor is made to save the limb, more especially in cases in which the line of fracture is oblique, or in which, from comminution of the bones, it is difficult to keep the fragments in accurate position, remember that the use of the extension apparatus is as valuable in the upper as it is universally acknowledged to be in the lower extremity. Thick sheet lead makes a most efficient splint, it can be easily moulded to the injured limb over the dressing; by its weight it steadies the limb and keeps it at rest.

In all *fractures* near the joints the soft tissues are to a certain extent saved from injury when the bone gives way, but still in all cases there must be some injury to the tendons, muscles, joint, and ligaments. These structures require, for the proper performance of their functions, nobility; prolonged rest to prevent any risk of non-union of the fractured bone, may be followed by stiffness of the neighboring joint, by adhesions of the ligaments, and organized effusion into the sheaths of the tendons. The result is a united fracture with a stiffened joint.

Non-union of bone does not occur in consequence of occasional gentle passive movement along with massage, if in the intervals the parts are kept at perfect rest. Non-union is much more likely to occur if slight constant movement is allowed between the broken ends. For example in fracture of the shaft of the humerus, and in fracture of the shafts of the radius and ulna, it is important to keep the elbow-joint at rest by means of a rectangular splint. If the elbow-joint is not kept quiet, there is more or less *constant* movement at the seat of fracture. This movement is very different from gentle passive movement every second day, with perfect rest in the intervals, as in fractures in the region of the wrist, elbow, and shoulder.

In Colles' fracture allow the patient to move his fingers and thumb after the first week, and after ten days take off the splints every second day and move the fingers, thumb, and wrist-joint gently. Take off all splints at the end of 4 weeks. Too prolonged rest in this injury often ends, more especially in old people, in irremediable stiffening of the fingers, thumb, and wrist-joint.

In fractures into the elbow-joint early gentle passive movement at the end of a fortnight every second day prevents stiffness of the elbow-joints.

In fractures of the upper extremity of the humerus begin passive movement after a fortnight.

In *dislocation* of the thumb, backwards at the metacarpo-phalangeal joint, dorsi-flexion of the thumb, with pressure on the head of the dislocated phalanx, is the simplest way to treat the case. In dislocation of the fingers the extension is best made by means of a toy made of plaited strong grass, so arranged that it can be easily slipped over the finger, but when it is pulled upon it grasps the finger tightly.

Fractures of the third and fourth metacarpals are diagnosed with difficulty. They are best treated by an anterior splint. Oblique fractures of the phalanges are most troublesome. It may be necessary, in such cases, to apply extension. An anterior splint, carefully padded so that there may be no pressure on the ball of the thumb, stretching from the bend of the elbow well beyond the tips of the fingers, is fixed to the fore-arm by sticking-plaster. An elastic band is attached to the injured finger by sticking-plaster, and extension is kept up by fixing it to the extremity of the anterior splint.

In fractures of the phalanges utilize the neighboring fingers as lateral splints, padding carefully between the fingers so as to prevent discomfort, excoriation, and itching. Skin should never be allowed to remain any length of time in contact with skin. In fixing the arm to the trunk in fracture of the clavicle and in fracture of the upper extremity of the humerus, if a layer of lint is not

placed between the arm and the chest much discomfort will follow.

In these fractures it will generally be found that the broken ends of the fractured bone are best brought into apposition by bringing the arm well across the chest, so that the hand lies on the opposite shoulder.

In fixing the arm the use of a long strip of sticking-plaster fixing the limb to the trunk is a simple way of treating these injuries. In green-stick fracture of the clavicle, a common accident often overlooked at the time of the injury, the strip of sticking-plaster is the best method of treatment.

In the fracture of the clavicle at the coraco-clavicular ligament there is no deplacement. In fracture of the clavicle external to the coraco-clavicular ligament t here is no downward displacement, and the forward displacement is not observed at the time of the fracture, but becomes very evident at subsequent date. Treat all fractures by simple means; let wood, pasteboard, and lead (in cases in which the patient is confined to bed) be your mainstays, avoid all special forms of appartus.

In *sprains*, carefully applied elastic pressure, with wadding, combined with massage and passive movement, gives the best results.

In diagnosing an injury look before you touch the limb. Remember the normal relations of the styloid processes in diagnosing injuries in the region of the wrist; the relations of the head of the radius to the external condyle, the relations of the olecranon to the internal condyle of the humerus in the elbow-joint; and let the coracoid process and its relation to the head of the humerus be the principal guiding landmark in injuries of the region of the shoulder.

Always expose the uninjured corresponding region, examine it in the first instance, and let it be your standard (having statisfied yourself that it *is* normal) in diagnosing the injury on the opposite side.

In *amputations of the toes*, a partial amputation may be performed in the great toe; in the other toes partial amputations are inadmissible; avoid any incision in the sole of the foot. Remember that the foot is a tripod, and that its stability rests on the integrity of three points of support—the ball of the great toe, the ball of the little toe and os calcis; interference with any one of these lessens the value of the foot as a basis of support. Any narrowing of the foot approximating the two anterior points of support also renders the foot less stable.

Utilize the plantar surface for the principal flap in amputations through the tarsus and at the ankle joint. In amputation at the tarsometatarsal joints and in amputation through the centre of the tarsus, after marking out the flaps by incision down to the bones, it is best to disarticulate and dissect the bones off the long plantar flap from behind forwards.

In all amputations in the lower extremity sacrifice length in order to obtain a stump that will bear pressure. A painful stump is worse than useless; with it the patient has no comfort, and cannot wear an artificial support.

In amputations above the ankle the long anterior flaps give the best result. In amputation below the knee the modified circular is, as a rule, preferable to the long posterior flap. If the latter method is adopted a posterior leaden splint, curved so as to support the long posterior flap is the best means of preventing retraction. In all amputations the posterior leaden splint is the best steadier of the stump. Lead as a splint, from its weight and plasticity, makes an excellent splint in many injuries, and after operations, both in upper and lower extremities.

In sawing the bones in amputations in the leg always enter the saw upon both bones at once, so that the fidula may be divided before the tibia. In amputation below the knee it is often difficult to secure the arteries. When such difficulty arises take a curved needle, threaded with catgut, and pass it into the tissues behind the bleeding point so as to include the tissues around the vessel in the ligature.

In amputation for injury through the shaft of a long bone the periosteum may be divided at a lower level than the bone; if this is done it is best to save the periosteum on the anterior surface of the bone, and allow a flap of periosteum to hang over the divided medullary cavity. Do not stitch it for fear of deep-seated tension.

In amputation at the hip-joint amputate by the circular method below the trochanters, tie the vessels, turn the patient round so that he lies on the uninjured side, make a vertical incision over the trochanter, keeping well back where the vessels are not important and the trochanter is most superficial, and disarticulate the head of the bone.

In all amputations for injury, in which the patient has lost much blood, save any blood escaping at the time of the amputation, and mixing it with a 5 per cent. solution of phosphate of soda, as described by Mr. John Duncan (MED. ABS., p. 59), inject it into the main vein before stitching together the flaps.

Ulcers are due to a local or constitutional cause; in most cases the local cause is the direct excitant, the constitutional cause rendering the patient more liable to evil consequences from the local irritation. Unless in the case of a burn or other distinct traumatic cause, always be supicious of a constitutional cause if the ulcer is situated on any part of the body except the lower half of the leg, and even then be suspicious if the ulcer is on the posterior aspect of the limb. Ulcers are prevented from healing either by a congested or an injurated state of the limb. Simple rest in the recumbent posture, elevation of the limb, and careful elastic pressure are the indications for treatment under which painful, fœtid, and spreading ulcers will, with few exceptions, become painless, sweet, and clean. Improve the vitality of the soil, and the putrefactive organisms will die out, not finding a suitable nidus or their further growth and development. The use

of antiseptics, such as iodoform and chloride of zinc (40 grs. to the ounce) is of secondary importance to an improvement in the vitality of the limb. They are, however, very valuable as adjuncts to the elevation treatment. After the ulcer has assumed a healthy appearance, if the patient must go about, apply elastic pressure *before* the patient arises from bed. This is a most important point, which possibly Dr. Martin was the first to insist upon.

When a patient is brought under your notice with pain in the knee, for which you cannot find any evident local reason, always carefully examine the hip; and in a patient who limps as if from hip-joint disease, if you do not find in the hip evident objective symptoms of joint disease, always carefully examine the back. He may be suffering from vertebral disease, with effusion into the psoas muscle under the psoas fascia.

In fractures of the leg use the box splint—two pieces of wood rolled in a sheet. See that the foot is kept at right angles to the leg, and thus retraction of the heel is prevented. Take care that there is no eversion of the foot. In oblique fractures use extension.

In fractures of the patella fix to the anterior aspect of thigh a large piece of sticking-plaster, and make through it extension on the quadriceps extensor cruris—elevating the limb on an inclined plane with a foot piece.

In fractures of the thigh use extension with the weight and pulley, take care that the weight is not too heavy, and measure the limb every third day, so that the weight may be reduced. The too prolonged use of the weight may result in delayed union or in non-union. In children, in restless adults, and in cases of delayed union, use a double long splint with a transverse cross piece. In other cases a single long splint is sufficient; with the double long splint the patient is fixed in a wooden box, so that he can only move his arms and his head.—*Edinburgh Medical Journal*, June, 1886.

NOCTURNAL INCONTINENCE OF URINE.

BY DR. H. PICARD.

(*Le Progrès Médical*, May 15.)

In order to form an exact idea of the mechanism of nocturnal incontinence—which belongs almost exclusively to young children—it is necessary to thoroughly understand in what micturition consists. The urinary apparatus has two functions to fill: The production of urine and its expulsion. We now speak only of the latter function. In the normal condition the urine which fills the bladder cannot flow back through the ureters because their orifices are closed by a sort of valve whose occlusion becomes more and more hermetic as the bladder becomes full. On the other hand the bladder, when full, contracts without our consciousness, and in compressing its contents against the uretro-vesical orifice, which it distends, gives rise to the desire tour inate. The urine does not run forward, firstly because the tonicity of the muscular fibres of the vesical sphincter and the urethral orifice suffices to retain it in the bladder when a flow is not needed; and secondly, if the desire is marked, and we wish to resist it, the contraction of the muscles of Guthrie and of Wilson comes under the influence of the will, reinforces the involuntary muscles, and maintains the urine in the bladder. In the contrary case we make, in the first place, a light effort, which, in contracting the diaphragm, supports the intestines upon the bladder and aids its contractions; and then we relax the voluntary muscles of the deeper parts of the urethra so that the involuntary muscles being no longer sustained, the urine cannot fail of expulsion. Here is then, in the physiological state—and this is a capital point in the subject which occupies us—an *opposition* between the action of the bladder and that of the urethra. The contraction of the latter, it is seen, is indispensable to the distention of the former during its time of repletion. Urethral relaxation, however, is voluntarily effected when the bladder contracts for micturition. Now, it does not matter in how small a degree the equilibrium may be interrupted between these two forces—the urethral which retains and the bladder which expels—the disturbance must result in incontinence. Well, in the infant up to 15 or 18 months, this equilibrium is absent, the contractility of the bladder being very great, whilst that of the urethro-vesical sphincters does not exist. The involuntary muscles are too weak at this time and the will is still incapable of causing the voluntary muscles to contract. So, in early infancy, incontinence is normal, and is diurnal as well as nocturnal.

When incontinence is prolonged after 2½ to 3 years it is abnormal, and at 4 years it has already become an infirmity, only, it ordinarily becomes at that age, wholly nocturnal. This abnormal prolongation of a normal condition is not invariably the origin of nocturnal incontinence, and sometimes we see cases of children who, although they have adopted correct habits at 3 or 4 years, become nocturnal urinators at 7 or 8.

Why does incontinence cease in the daytime in children who have it at night? Because in the waking condition the will intervenes in contracting the urethral muscles subjected to its influence. Also, it is observed that some children sleep so profoundly that the desire to urinate is powerless to awaken them. In these cases the sensation goes to the medulla which conducts it to the brain; but this organ, made insensible by sleep, does not perceive the impression and, therefore, does not make any effort to contract the voluntary muscles. But the medulla, which perceives the sensations and responds to them as well during the night as during the day, relaxes the muscular fibres so that the neck of the bladder being no longer closed by either, allows the urine to escape without the knowledge of the individual. In children within this category the emission takes place at the time when sleep is most profound. Trousseau cites a striking example in the case of a girl who was

always awakened during the first half of her sleep and caused to urinate, but who, nevertheless, urinated in her bed during the remaining half of her slumber. As she explained it, she urinated during the second part of her sleep because it was then that she slept most heavily.

In many urinary incontinents, the vesicle contraction is so prompt and energetic that the urine emerges almost before they have been conscious of the desire, and without their having been able to arrest its flow. So, during the day, if by idleness or distraction, these children do not attend to the first sensation of a desire to urinate, they soon become suddenly pressed by the necessity, and often let the urine flow into their clothing. The equilibrium is broken, the expulsive force of the bladder having been augmented, whilst the retaining force of the urethra had remained the same, or had become weakened. This is shown clearly in the fact that if you make an incontinent child urinate in your presence at the time they usually feel the desire, you will see the urine thrown out by a violent impulsion. Again, if we introduce a catheter into the bladder, and gently throw in an injection, we find that it returns with force through the instrument, though we had no trouble whatever in introducing the instrument itself; and this shows how vesical power, when conjoined to sphincterian weakness, upsets the equilibrium.

In certain cases of incontinence of urine, sleep is normal, but the impression of the desire to urinate appears so weak that it is powerless to cause the contraction of the sphincters. The same consequences follow, the child urinates without awaking. In this kind of incontinence the urine sometimes flows involuntarily during the day, but without the jet being thrown out more energetically than in the normal state.

Whatever may be the result of too forcible vesical contractions, of powerlessness in the neck, of too profound sleep, or of weakness of sensational impression, these are not the only occasional causes of incontinence. A too dense condition of the urine will produce the same effect because its acidity excites vesical contractility and makes the desire to urinate livelier and, therefore, more pressing. This kind of urine is easily recognized without scientific examination. Ordinarily limpid, though sometimes nebulous, we find that at the time of its emission it thickens in proportion to its lowness of temperature. When cooled it leaves thick deposits which are often taken for pus but are chiefly urates. The urine becomes clear again when subjected to heat.

Some of the vermicular inhabitants of the rectum, which emerge at night, and invest the genito-urinary organs, provoke an irritation which gives rise to a desire to urinate by contracting the bladder, thus acting in the same way as acid urine.

A contracted prepuce or meatus is often accompanied by incontinence of urine. But in these cases the mechanism of the trouble is different. It is generally an incontinence caused by engorgement. The bladder is full, and the little patient retains his urine on account of the pain which micturition causes him, so that the urine escapes from time to time in spite of his efforts to retain it. If you introduce the catheter after he has urinated you will find that a considerable amount of urine has been left in the bladder.

Inflammation of the deeper parts of the urethra produces the same results, whilst inflammation of the bladder does not permit any accumulation of urine.

All of these causes may also have the effect of giving rise to dreams during the course of which the child urinates in the belief that he is doing so in his vessel. I say nothing about children who urinate in bed from pure laziness; that kind of incontinence is not a malady.

Has the general condition an influence upon the incontinence of urine? The question is much discussed. To me it is evident that delicate children are more subject to the trouble than others. But an undeniable cause lies in heredity. The children of nervous parents, and especially those suffering from nervous diseases, are often predisposed to incontinence. This is not surprising in a malady which, whatever idea we may form of its mechanism, can be little else than a neurosis of sensibility or motility.

Nocturnal incontinence of urine generally ceases with puberty, but we not unfrequently meet with cases of persons of 20 to 25 who are troubled with it more or less constantly.

The principal medicaments used in this affection are: Belladonna, when the trouble results from an exaggerated contraction of the bladder; and nux vomica, when it proceeds from weakness of the peri-urethral muscles.

The rules for the giving of belladonna have recently been laid down by Trousseau. He commenced by giving a pill of 1 centigramme of the extract at bedtime; this was continued for several days. Then, without stopping on account either of the cessation or persistence of the malady, he augmented the doses to 6, 7, 8, 9 and 10, and in some cases to 15 or 20 centigrammes. If there was no intolerance he pursued the treatment for a month or two, or for a considerable time after the cure seemed to be effected. Where the pills are not well borne a syrup of equal parts of syrup of belladonna and syrup of tolu is used.

Where belladonna causes congestion of the face and eyes, we may use bromide of potassium in doses of 15 centigrammes for a child of 4, and 50 for one of 12 years. Very much larger doses may be given if they do not disagree. A good way to give it to children is in soup.

Nux vomica is usually given to children in syrup, containing 5 centigrammes of sulphate of strychnia and 100 grammes of simple syrup. The dose is a dessertspoonful (containing 5 milligrammes of the drug) for children of 5 to 10 years, and it is given morning and night for two days. If

it is well supported, an interval of two days is allowed, and then 3 teaspoonfuls are given morning and night for two days. Then follows another interval and a further augmentation of dose until the amount has reached to 6 teaspoonfuls. Care must be taken to make the intervals with exactitude. This accomplished, the doses are raised by a dessertspoonful, and continued in the same way up to six dessertspoonfuls (containing 60 grammes of syrup and 3 centigrammes of strychnia). A tablespoon is then substituted and the dose augmented until it reaches 120 grammes of syrup. Above the age of 10 we commence by giving a dessertspoonful, and progress in the same way to 200 grammes of the syrup, or 10 centigrammes of its active principle.

Strychnia in augmenting reflex actions may, in high and long continued doses, create a tendency to spasm. The patients must be watched, and the treatment interrupted when they complain of stiffness in the jaws and the muscles of the neck, of headache, vertigo or visual troubles. The accumulative properties of the medicament must also be borne in mind, and proper intervals made when necessary.

Owing to the care needed in the administration of strychnia, some practitioners are now making successful use of ergot in these cases. Like strychnia it certainly has the power of causing muscular contraction. It is given in powder, 20 centigrammes in sweetened water morning and night for a child of 4, 25 cent. for those of 5 to 6, and 30 to 50 for those of 14 or 15 years. These doses may be continued for 10 or 15 days and interrupted for a few days during a month, or a little over, when it will usually be found that the medicine has produced its effects. Of ergotin be preferred it may be given in pills of 10 centigrammes, of which 2, 3 and even 5 may be taken daily at proper intervals. In certain cases where the augmentation of the vesical contractility appears to be associated with a weakness of the urethral muscles, strychnia or ergot—which would here be better—may be used in conjunction with the belladonna.

Of all the remedies used for the incontinence caused by contractile insufficiency in the urethral muscles, electricity is perhaps the most efficacious. One of the poles may be applied over the perineum and the other upon the abdomen over the bladder, or in the rectum. Grusse reports very many cures by this method. In obstinate cases one of the poles is introduced into the urethra and the other is applied to the hypogastrium, the perineum, or is introduced into the rectum. The use of this method sometimes frightens children and their parents, but it is not painful. Its effects, when it cures, is almost immediate, and when it does not cure it affords great relief. The peptonate of iron is a proper adjuvant to use simultaneously with ergot, strychnia or electricity, for if these give special tone to the muscular fibre, the albuminate fortifies the general system and reconstitutes the blood corpuscles. Hydropathy, like iron, is a powerful tonic, but should be used prudently. Sea baths are often successful with lymphatic and scrofulous subjects, and sulphur baths in cases of nervous affections.

Where incontinence is caused by inflammation of the bladder the best means is to inject the organ with a few drops of nitrate of silver of 1 to 200 or 1 to 500, according to age and the severity of the case. Soothing drinks, with a little bicarbonate of soda added, act well in cases where the urine is too dense, or too acid. Incontinent children should take their evening meal early, and be somewhat restricted in the use of drinking water at night.

Parents should be directed to find out the hour at which the child is likely to urinate in bed, and wake him up a short time before it arrives. In the daytime care should be taken to encourage him to urinate only at certain hours fixed at a reasonable time apart. This is the best way to habituate the bladder to retaining urine. Where it is certain that incontinence is caused by carelessness, prudent correction should be administered. Trousseau tells of an obstinate case of incontinence in a full-grown girl, whose malady had resisted all medicaments, but who gave way at last to the nightly attacks of a determined mother armed with a whip.

INTERNAL HÆMORRHOIDS AND HOW TO TREAT THEM.

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Unless indurated, an internal hæmorrhoid often escapes detection by the examining finger if the patient is recumbent. An injection of warm water, followed by straining efforts, or a gentle diliatation of the sphincter under an anæsthetic, is the most satisfactory method of detecting them; sometimes a speculum will suffice, without either injection or diliatation. Careful examination by the finger should be made of the rectum higher up, since the piles may be symptomatic of a stricture of the rectum. If, after inspection, there remains any doubt as to whether a pile be external or internal, or whether it is both, Allingham's advice of returning all the protrusion possible within the sphincter ani by gentle pressure, while the patient is directed to draw up the lower part of the gut, will resolve all doubts, *i.e.*, that which remains outside is external pile.

For the radical cure of internal hæmorrhoids these procedures are available, viz.: 1, injection; 2, strangulation with the ligature; 3, the clamp and cautery; and 4, screw crushing. Excision must never be contemplated, since fatal hemorrhage has often followed it. The ecraseur is only mentioned to be condemned.

Injection.—For this purpose pure carbolic acid is far superior to all other agents. Although some

authorities contend that all varieties of internal piles are adapted for the carbolic acid treatment, we consider this to be an error, and one calculated to bring this method of operating into disrepute, as it has done that by nitric acid in the past. Only those piles which are but slightly hyperplastic, and situated well above the sphincter, should be injected. These piles may prolapse, but when returned, lie well above the sphincter. In this form they are merely varicose blood vessels, whose contents can be coagulated, or whose walls can be stimulated to contraction after partial or complete thrombosis of some of their tributaries has decreased the intravascular tension. Perhaps, in addition, some hyperplasia of the submucous tissue may be set up, which will prevent any future tendency to prolapse, and strangulate also some few vessels. Restricted as I have said, this method will prove useful, especially in cases with regurgitant heart lesions or enlarged prostate. It should never be used for indurated piles, since, unless sloughing is set up, the tumors—and with them the tendency to prolapse—cannot be removed, and if the tumors are to be removed, more exact and controllable methods should be employed. Although often unattended with discomfort, this method sometimes gives agonizing pain. Small marginal fistulæ may result, requiring splitting up if they do not spontaneously heal. If the injection, especially if strong, be thrown *beneath* the pile into the general submucous tissue, or if too strong a solution be used for a small pile, a most serious ischio-rectal abscess often results. Ulceration is said to be not uncommon, but tractable. I believe most of these accidents can be avoided by care, and by only injecting piles such as I have described.

Operation.—The tumors must be well exposed by a previous warm-water enema, aided by the patient's straining. If this do not suffice, use a speculum (the small end of a Sims' uterine acts admirably when not too large), or draw down the tumors by toothed forceps or a tenaculum. An ordinary hypodermic syringe will do, but the one specially constructed for the purpose, as sold by most instrument makers, is better. The needle point " must be entered perpendicularly from the apex, and not passed upward under the mucous membrane in a longitudinal direction, so that the injection reaches the central tissue of the pile." After injection, the pile, if prolapsed, must be gently replaced, and each injection had better be followed by a day's rest in the horizontal posture. In some cases all rest may be dispensed with, but quiet is better. Provided the patient's bowels act regularly, no after treatment is required. The strength of the solution must vary with the result aimed at. Kelsey advocates the injection of five drops of pure carbolic acid into large, vascular, well-defined prolapsing tumors, " expecting to produce a circumscribed slough resulting in a radical cure." Such an injection will, in some instances, produce evanescent toxic effects. I have never myself used the pure acid, and should hesitate to do so with my present experience of other methods. A solution containing one-third carbolic acid, repeated several times, will, according to this author, produce a cure without slough. " A small, slightly-protruding, non-pedunculated tumor, merely felt as a prominence on the mucous membrane, may be cured by a single injection of a five per cent. solution, which will cause it to harden and shrink, while a fifty per cent. solution might give a good deal of trouble." With the weaker solutions the treatment will last from three to four months, the injections to be repeated twice weekly, unless sloughing is produced. One pile only should be treated at a sitting, but if very large, two or more injections may be used of a solution varying from five to twenty per cent., introduced some distance apart. As can be gathered from the foregoing sentences, even in the hands of its most ardent advocates, this method is neither always painless, nor does it insure against confinement to the house, and, more rarely, serious sequelæ follow. I must confess to considerable disappointment following my own use of the method; still, I consider, for soft, non-prolapsing or only slighly prolapsing piles, especially in those with chronic hepatic or cardiac trouble, it is the best, if not the only, method to be advocated.

Operation by the Ligature.—Gentle, but forcible stretching of the sphincter should be a preliminary to either the ligature, cautery or crushing operation. This manœuvre gives ready access to the parts, and saves the patient from the painful pinchings of an irritated sphincter. The best position for the patient in all pile operations is the Sims' position for operations on the uterus or vagina, in which he should be placed after full anæsthesia has been induced. Some few patients, by previous injections of a four per cent. cocaine injection into the bases of the piles, will permit an operation without general anæthesia. A preliminary evacuation of the bowels by means of a laxative given the night before, and a tepid enema a half hour or so before the operation, should not be omitted. After full dilatation of the sphincter, each pile in turn should be seized with a volsellum-toothed forceps or tenaculum, and separated from the muscular and connective tissues by dissecting it up with the scissors parallel to the bowel. The incision is to be started in the sulcus, commonly indicated by a whitish line, where the mucous membrane and skin meet. As the vessels run parallel to and just beneath the mucous membrane, entering the pile at its upper part, the dissection can be carried on without danger until the tumor is connected by a pedicle composed only of the vessels and mucous membrane. A strong, well-waxed ligature must now be carried well down to the bottom of the wound, the pile be firmly pulled out, and the thread tightly tied as high up the pedicle of the tumor as possible. The surgeon had better begin with the smallest piles when a number are present, lest they be overlooked, and

the most inferior ones should be attacked first, so that the flow of blood may not obstruct the operator's view.

After each pile has been tied, the bulk of it must be removed by the scissors, leaving only enough to prevent the ligature from slipping; the latter must be cut short, and when all the hæmorrhoids have been dealt with, the stumps must be carefully returned into the bowel well within the sphincter, after having been well dusted with iodoform. Any external tabs of skin requiring removal should now be snipped off in a radiating manner with the scissors, bearing in mind that a too free removal of skin may cause undue contraction of the anus.

Before recovery from anæsthesia, a rectal suppository containing a couple of grains of opium should be introduced into the rectum, and a compress of lint or cotton firmly secured over the anus by a T bandage. This tends to obviate anal spasm and consequent pain.

Operation by Clamp and Cautery.—Each tumor must be separately dealt with, being firmly drawn out by a volsellum or tenaculum, so that the clamp can be carefully applied to the base of the hæmorrhoid. After securing the clamp tight, the operator should remove, with a pair of curved scissors, all of the tumor which projects above the clamp, except about a "scant fourth of an inch;" if the stump be cut too short, the cautery cannot act effectively in sealing the vessels. The stump, after having been wiped dry, should be slowly and thoroughly cauterized with the iron at a dull red heat, destroying the stump down to the surface of the clamp. Special attention should be paid to sealing the vessels at the upper end of the pile, where its chief vascular supply enters. Another method is to use either a dull chisel or serrated-edged cautery, which must be made to travel along the upper surface of the clamp until the protruding portion of pile is removed.

Whichever method has been employed, after the cauterization has been completed, the clamp must be loosened, turn by turn, and while this is being done, care must be taken to press it well down against the bowel, lest the stump slip out too soon; if, during the loosening, any vessel bleeds, it must be cauterized anew, with or without retightening the clamp, according to the flow of blood. All the piles having been treated, the stumps are to be gently returned well up the bowel by the oiled finger, an opium suppository introduced, and an anal pad and heavy T bandage applied. Some oozing always results from the mucous membrane where compressed by the clamp, but must be disregarded.

The advantages of the cautery over the ligature are said to be immunity from tetanus, pyœmia and hemæmorrhage, the less chance of retention of urine and the freedom from pain. All these accidents have, however, happened, and while I personally prefer this method to the ligature for prolapsing indurated piles, yet no method—not even the injection plan—can be said not to occasionally terminate fatally. *This fact must never be forgotten.* Upon the other hand, a tenaculum, a pair of scissors, and ordinary strong ligature silk are all that are needed for the tying operation. These the general practitioner has always at his command, while a proper clamp and cautery—I prefer the Paquelin, when obtainable—is only in the posession of the few. I think the cautery is a safer operation when done by one accustomed to this method, but I would recommend the tyro to depend upon the ligature.

In the same way, Mr. Pollock's operation of "screw crushing," as modified by Allingham, requires a special instrument, which none but specialists, or, perhaps, a few general surgeons, will possess, so that I shall not speak further of this method beyond saying that it has received the unqualified sanction and preference of so great an authority as Mr. Allingham.

After-treatment.—This is the same for any of the radical operations. The diet should be light and unstimulating, such as beef or mutton broth, beef tea, milk, tea and toast, etc., until after the first movement of the bowels, when a more liberal diet may be instituted. Unless there is some special condition demanding their use, wine, beer or spirits should be strictly interdicted. If retention of urine occurs, a warm hip bath is indicated, and often suffices; if not, the catheter must, of course, be used. The bowels had better be opened on the third or fourth day by castor-oil emulsion, aided, perhaps, by an olive-oil injection carefully thrown into the bowel just before the stool, which may be thus rendered almost painless, although the patient should be warned that he may experience severe pain and have a little bleeding. The bowels—kept quiet, if necessary, by paregoric—should be again relieved in two or three days, when—*i.e.*, after the lapse of a week—if the patient has not, previous to operation, lost much blood, he may be allowed to exchange his bed for a sofa. At the end of ten days—better two weeks—although the cut surfaces are not usually entirely healed, they are in a condition to allow of moderate exercise or a return to light work. An enema should precede every motion for at least two weeks longer, since a costive movement or hard straining at stool will sometimes, so late as ten days or more, induce rather smart bleeding from the congested granulating surfaces. Should the resulting ulcers fail to heal, or extend after any method of operating, *rest in bed* and stimulating local applications, with attention to the action of the bowels and general health, must be resorted to.

When a very extensive operation has been performed, it may be well for the surgeon or patient to pass the well-oiled forefinger or a small rectal bougie through the anal orifice once or more daily for a few weeks, to prevent undue contraction; this is, however, very rarely necessary, unless the skin around the anus has been recklessly cut away.

I think that I have now demonstrated that there

is no such thing as "*the* best treatment" for piles, but that each variety and each individual case must be treated indifferently; that many cases will need no operative treatment so-called, and that a minute scientific knowledge of this disease, as of all others, teaches, theoretically, what proves to be the best treatment, and explains why methods empirically adopted are clinically successes or failures.—*Phil. Polyclinic.*

THE TREATMENT OF GONORRHŒA BY IODOFORM.

Dr. Alexander V. Khrul, of Irkutsk, recommends (Proceedings of the Eastern Siberian [Irkutsk] Medical Society, 1885, p. 34) the treatment of gonorrhœa after the method of Dr. Watson Cheyne (described in the *British Medical Journal*, 1881), somewhat modified, which he has successfully practiced about two years. An ointment made of one part of iodoform and ten parts of vaseline is somewhat liquefied by heating, and then aspirated (by suction) into a fine elastic catheter, the latter peing anointed externally with the same mixture, and introduced into the urethra to the depth desired.

The ointment is blown out of the catheter by the operator's or patient's mouth applied to the free end of the instrument. The advantages claimed for this plan by the author, on the ground of seventeen cases, are as follows:

1. It enables even deeper parts of the urethra to be subjected to the direct action of the iodoform.

2. While covering the urethra walls, the ointment gives them sufficient protection against any irritating influence of the urine.

3. The method enables us to get rid of internal administration of balsamic drugs, which are injurious, being apt to produce renal pain, albuminuria and nephritis.

4. On the other hand, it enables one also to get rid of the treatment by watery injections, which do not allow any prolonged contact of the medicaments with the diseased mucous membrane.

5. The ointment produces a strikingly rapid narcotic and disinfectant action, the painful phenomena of the acute stage disappearing within twenty-four hours.

The method is especially indicated in persons with irritable urethra and kidneys. The single drawback is the necessity of aspiring and insufflating the ointment by the mouth, which procedure may appear rather unattractive, even to not overfastidious people. However, it might be replaced by the use of an India-rubber contrivance.—*London Medical Record.*

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SUDDEN CHANGES OF CLIMATE.

Mr. E. V. Robins, in the *Popular Science Monthly* for December, says:—

"If a blizzard of unusual severity were coming from the northwest that would send the thermometer down 50° or 70° in three hours, we should expect a great increase of pneumonia and other respiratory diseases, resulting in many deaths. Now, instead of three hours, suppose the mercury were to drop threescore degrees in three *minutes*—or, take another step in fancy, and suppose this great change to take place in three *seconds*—what would likely be the effect on health? And yet we bring about, artificially, changes to ourselves quite as sudden and as severe as this.

We make an artificial climate in our houses. We live in-doors in an atmosphere heated by stoves, furnaces, or steam pipes, to 70° or 80°, and we pass from our parlor or hall, so heated, into the open air. At a step, literally in a breath, the temperature of the air has, for us, dropped 50° or 70°. We may put on an extra coat or shawl and shield the *outside* of the body and chest, but we cannot shield the delicate linings and membranes of the air-passages, the bronchial tubes, the lung-cells. *Naked* they receive the full force of the change—the last breath at 70°, the next at freezing or zero—and all *unprepaaed*. We have been sitting, perhaps, for hours in a tropical atmosphere; nay, worse, in an atmosphere deprived by hot iron surfaces of its ozone and natural refreshing and bracing qualities. Our lungs are all relaxed, debilitated, unstrung, and in this condition the cold air strikes them perhaps 60° below what they are graduated to and prepared for. Is it strange if pneumonia and bronchitis are at hand?

If we are at the West Indies, or even in Florida, and wish to come north in winter, we try to make the change gradual. But in our houses we keep up a tropical climate, or worse, for you have not the freshness of air that prevails in an open tropical atmosphere, and we step at once into an atmosphere as much colder as 40° difference of latitude will make it. It is in effect going from Cuba to Iceland, or at least to New York, at a

step, and we make the journey perhaps a dozen times a day. And often, while we are still shut up in our domiciliary Cuban climate, Iceland comes down upon us from an open window. Especially is this likely to occur in school-houses, where children will instinctively seek to get a breath of fresh air that has not had all its natural refreshing qualities quite cooked out of it by hot stoves, furnaces, or steam-pipes. And all these sudden changes and shocks of cold come upon us while the whole system has its vitality and powers of resistance gauged down to the low necessities of a tropical climate."

There is, of course, a great deal of truth in the above remarks, and those of us who reside in the northern part of the continent are, perhaps, a little better fitted to realize the fact, than are those who live where intense cold is not the rule in winter. Yet nature is wonderfully alive to the necessity which exists to train up those thus situated to withstand the sudden transitions to which they are subjected. Theoretically speaking, we should have a series of apartments, each of a gradually lower temperature, through which we should pass, with a brief sojourn in each, before passing into the outer atmosphere. This is the rule in Turkish baths. Of course, in our daily life, such a practice is quite impossible, and that we do not suffer by passing from a room at a temperature of 70 to a temperature of 20 below zero is simply because nature has trained our apparently delicate internal organization to it. Still even with us, there comes a time when our organization is so weakened, either by failing health or advancing age, that Pneumonia, Pleurisy or Bronchitis is a common result of this sudden transition of temperature. Can anything be done to prevent it? We think there can: Aged and weak persons should not go out during intensely cold weather, and any who may be compelled to do so should be taught to breathe through their nostrils, and to keep the mouth shut. This, we believe, is the route which nature intended air should pass on its way to our lungs. But to many this is a practice difficiult of accomplishment. Such persons should wear a respirator, and in this way warm the air they breathe. If this was done we are satisfied that many a life would be saved, which is now lost during our severe winter weather.

PERSONAL.

Dr. F. W. Campbell, Surgeon of "B." Co. Infantry School Corps, took rank as a Surgeon-Major in the Canadian Militia in October last, after twenty years service as a Surgeon.

Dr. J. Leslie Foley, (M.D. Bishops College, 1880) has recently successfully passed the examination for the fellow ship of the Massachusetts Medical Society. He is in practice in Boston. We hear he was lately offered the position of Assistant Physician of the Utica Insane Hospital at an excellent salary and perquisites. His prospects in Boston, however, are so good that he declined.

Dr. Howard, of St. Johns, Que., who has been so seriously ill since August, 1885, is, we are glad to say, so far improved as now to be able to get out occasionally. We but echo the wish of his many friends when we express the hope that before many months, his improvement may be still more marked.

Dr. Blackmer (M. D. Bishops, 1883) of St. Louis, Mo., was in Montreal this month on his wedding trip.

Dr. J. M. Mackay (M.D. Bishops College, 1879) has been appointed Inspector of Anatomy for the City of Quebec.

Dr. Kannon (M.D. Bishops College, 1879) has removed from Montreal to Los Angelos, California. He was doing well in Montreal, but he made the transfer on acount of his wife's health. We regret to hear that hardly had he arrived at Los Angelos than the house in which he was staying took fire, and that the Doctor lost most of his goods, including his Diploma from Bishops College, and the License of the College of Physicians and Surgeons of Quebec.

Dr. Gillard, (M.D. Bishops College, 1885) of Jamaica, is at present in Montreal on six months sick leave. Dr. Gillard is employed in the Colonial Service.

Dr. Blackader, Instructor in diseases of children in McGill University, Faculty of Medicine, has returned from a three months' sojourn on the Continent in search of the latest medical knowledge. We are glad to find Dr. Blackader looking much improved from his trip.

Dr. Roddick, Professor of Clinical Surgery, McGill University, has gone to Florida on a trip for the benefit of his health.

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Original Communications.

SOME OF THE PRESENT ASPECTS OF SURGERY.

By WM. H. HINGSTON, M.D., D.C.L., L.R.C.S.E.,
Surgeon to the Hotel Dieu; Professor of Clinical Surgery.

Read before the Medico-Chirurgical Society.

Much of what I am about to read to you has been hurriedly written. Your secretary called upon me three evenings ago, and invited me in the name of the Society to read a paper before you to-night. Here it is, with all the evidences of haste clinging to it:

The aspects of a science or of an art are as the aspects of a country; not being always objective are not always the same--for the subject, seeing, has views of his own, habits of vision as it were, and these, unconsciously to himself, perhaps, change and colour the prospective. I am as one, and only one of those observers, and the field of observation—chiefly ultra mare—is the scene of former and more lengthened residence.

During my recent visit to Europe, after an interval of nineteen years, I perceived, or fancied I perceived among individuals in the higher walks of the profession, whether met with in society or at their own homes, a greater seriousness—a greater earnestness than on former occasions. Or was it that those intervening years had changed the mode of vision in the observer?

The friction of mind against mind is seemingly incessant. The struggle for position is unremitting—rendered the more necessary by the increased and steadily increasing cost of living, and almost *pari passu*, the steadily increasing number of votaries to the healing art. The large incomes enjoyed—not always enjoyed, but always slaved for—by a limited few, have caused recruits innumerable, each one hoping to achieve distinction, as in the time of Napoleon the humblest soldier was animated with a hope of one day exchanging his musket for the *baton* of the marshal.

Although great courtesy characterizes the relationship of members of the profession with one another, there are few who are not keenly alive to the necessity of continued effort for supremacy, as well as for its recognition; and self-assertion, though clothed with becoming modesty, is not always absent from the highest and most conservative ranks of the profession.

But—and most markedly in Great Britain—plain, honest thought finds plain, honest expression at all the meetings of societies I attended. Vague statements are unheeded; and if imagination is suspected as a possible source of stated fact, a clapping of hands is an indication of *that fact* having been duly noted. The most imaginative could not devise a readier method of expression than the clapping, graduated on a crescendo scale, which marks distrust or disapproval; and tediousness or irrelevancy receives a quietus in the same way.

The vast strides in the study of minute and morbid anatomy, and in special and general pathology, have opened up newer, and, it is said, more profitable fields of professional labour. The growth and multiplication of specialties are prodigious. The three divisions of physician, surgeon and accoucheur; the subdivision of eye and ear surgery, and afterwards the further separation

of the two latter, are no longer adequate to express the numerous subsections of professional work. On former visits I usually spent an hour or two a day with Sichel, Desmarres, or von-Græfe over the eye; with Wilde or Toynbee in studying the ear; while a Stokes, a Graves, a Trousseau, or a Schoenlein was, in our then benighted condition, deemed fit to teach the practice of medicine in general; and a Syme, a Velpeau, or a Langenbeck, was supposed to be quite abreast of general surgery. Now, all is changed, and perched on every barleycorn of vantage ground, the specialist works in a narrower—a more restricted sphere, seeing clearer, no doubt, what he *does* see, but with less acquaintance, it is said, with the ailments of other organs with which his own may be intimately connected. Yet the labors of the specialist—each in his own department—have greatly advanced the general stock of knowledge. The all-around man is becoming a rara avis; yet when a Jonathan Hutchison appears, going to and from the meetings of the British Medical Association, he is greeted by physician and surgeon alike as one who, in his day, has touched many things pertaining to both medicine and surgery, yet of whom it may be said, *nec tetiget quod non ornavit.* It is men such as he who show us how the various branches of our art are mutually dependent, and how they correct, reform and reclaim each other.

The newer and more inviting fields of special work are, in Great Britain, drawing into their ranks, at a rapid rate, men who will be competitors in those ranks. There must soon be a limit to subdivision. The story told, a few years ago, of a lady in London who had given her lungs to one physician; her liver to a second; her heart to a third; her womb to a fourth, and so on, would now be strange in the atmosphere of refined life, were she so incautious and so ill informed as to confide the whole of any organ to a single individual.

Now and then, as you are aware, efforts are made in the direction of synthetizing diseases. Thus Erasmus Wilson, in his old age—and it was a richer legacy than that represented by his Cleopatra's needle,—reduced, for therapeutic purposes, diseases of the skin to *four* clearly and easily understood heads. The whole was contained in a few duodecimo pages. Eczema was grouped naturally under one of them, and I much doubt if any of the octavo volumes, on that disease alone, have contained more matter for the practising physician than the few lines in question. No one is still doing more to harmonize medicine and surgery than Sir Jas. Paget, who draws from pathological anatomy and from clinical pathology, whether for the use of the experimentalist, the chemist or the microscopist.

Great advances have been made in the diagnosis of diseases of the different cavities of the body; but in the exploration of mucous inlets, as the nose, larynx, trachea, urethra, bladder or vagina, I failed to notice any advantages not within the *porteé* of practitioners twenty years ago.

The *principles* of treatment are not now much better understood, although *diagnosis* may have outstripped its former self by many a stride.

With the greatly increased facilities for the investigation of disease; with the improvements in the methods of diagnosis; and with the application of direct methods of treatment, initiation is sometimes shrouded in well-intentioned mystery. For instance,in a specular examination of one of the mucous inlets, there was an arrangement of mirrors which reflected the electric light *four* times before it reached the mucous membrane. The green baized drapery completed the illusion; and the fee was larger, possibly, than if the examination had been gone through with direct light, or with light once reflected.

The separation of medicine, as a whole, from surgery, as a whole, seemed destined to be complete and irreparable. But it is not so. Handmaids of each other they must ever remain; again, a tendency is noticeable of an *approchement*, and this time by the invasion by the surgeon of the domain of medicine.

The lines which separate specialties are, as I have said, narrow, short, yet well defined. They are steadily becoming narrower, shorter, and still more defined as between specialties, and especially surgical specialties. That the public is a gainer is much doubted. But while the lines which confine specialism within steadily narrowing limits are becoming more defined, the lines which separate medicine, as a whole, from surgery, as a whole, —even in those departments in which, till recently, the physician tolerated not the aid or intervention of the surgeon,—the latter has dared to enter, and with advantage, the domain of the physician.

Not many years ago, for instance, in all affections of the chest or abdomen requiring manual interference, the surgeon was sent for, and the operation was performed at the request, and under

the guidance and direction of the physician whose diagnosis was followed, and who had called in the surgeon to do that which required a cooler nerve or a more dexterous hand than that possessed by himself. How is it now? The surgeon's knowledge of *internal* derangements within the skull, chest or abdomen requires to be so precise that skill in operating must wait upon, and be preceded by great accuracy in diagnosis.

The surgeon who trephines the skull, cuts through its membranes, and removes a tumor from the brain; or who sends a bistoury through its substance to an abscess, does that which requires no extraordinary manual skill or dexterity—a butcher, or a butcher's boy could do it as well. But the exact, the precise localizing of disease within the brain, by the correct interpretation of disturbance of function *at a distance*, is one of the greatest triumphs of modern surgery, and is a step towards its recognition as a science as well as an art.

The domain of the surgeon is, therefore, steadily extending,and fractures, dislocations and excisions of tumours no longer limit the field of his labours.

It would be inconsistent with the time at my disposal to traverse the field of practical surgery, to point out what might be considered encroachments upon the territory of the physician. I shall only allude to those instances, where, till recently, medicine, and medicine alone, was relied upon for relief:

In chest affections requiring surgical interference, diagnosis must be clear and precise. In empyema, for instance, not alone must the quantity and situation, but even the quality of the fluid be made out before proceeding to operation. In bronchiectasis of the lung, where the difficulty of diagnosis is admittedly great, it must be precise before resorting to any operative procedure. Here, again, the surgeon, although he may receive aid in determining the exact site and nature of the disease, must rely upon his own diagnosis, chiefly, if not entirely.

In local peritonitis what could be more daring, more surprising, yet more satisfactory than Mr. Lawson Tait's thrusting a bistoury into the groin of a woman labouring under all the symptoms of puerperal fever, where he suspected pus by the symptoms alone, but where, as he told me, there were no outward signs of its presence; no swelling, and no local tenderness. From a condition, almost of collapse, recovery took place. The operation was not, t'is true, a difficult one. Anyone could have performed it; but the diagnosis was prophetic.

The case of Dr. Leslie Phillips, operated upon by John W. Taylor, F. R. C. S., is of like character, and now that attention has been directed to the subject, and that surgery has taught a means of escape, deaths from supposed puerperal fever will, it is hoped, be less frequent than formerly. Here, as you will see, surgery comes to the relief of the obstetric physician in cases which are peculiarly within the province of the latter.

In diseases of the abdominal organs how much has lately been done by surgery. Hepatitis, with all its train of sufferings, was claimed by medicine as its own; but surgery of the liver has suddenly leaped into importance lately. A painful, inflamed, and enlarged liver is now relieved by Harley and others, and the patient cured by the insertion into it, at its upper and convex part, of a long trocar, and by the drawing directly therefrom as large a quantity of blood as was considered prudent to be taken from the arm in the days of venesection. Operation for draining hepatic abscesses or removing hepatic cysts; cholecystotomy for crushing or taking calculi from the gall bladder; laparatomy for purulent or persistent peritonitis; abdominal sections for internal hemorrhage,etc., are all of recent date, and open a field, not of brilliant operative procedures, but of more brilliant diagnosis, and what is of greater moment, of far more beneficent results.

The considerable degree of immunity from danger which has attended abdominal sections, has led to the spaying of females—married and unmarried—for sometimes real—sometimes, it is believed, unreal sufferings. This operation has been performed for objective disturbances, and for disturbances purely subjective: Prolapsus of the ovary, a common affection; atrophy of the ovary, not easily diagnosed; œdematous ovary; a pultaceous condition of the ovary; cirrhotic ovary; hydrosal pinx; in pyosalpinx *pur et simple*, often guessed at by raised temperature alone; in pyosalpinx resulting from gonorrhœa; in that condition of neurosis whose shapes are endless, and whose outward hysterical manifestations are innumerable; in localized peritonitis where the intestines, omentum, etc., are glued together, etc., etc., etc.; in inflammatory conditions after confinement, especially in the acute and subacute stage; in deformity, where the birth of a living child might be *reasonably* expected to prove fatal to the mother; in uterine myomata where the size of the growth is inconvenient; in bleeding myomata; in (who would believe

it?) all cases of uterine myomata in patients under forty years of age; in retroflexed and anteflexed uterus; in epilepsy; in hystero epilepsy; in every case of insanity in the female. ! !

Here, as you will perceive, I have said nothing of those considerable tumours of the ovary or tubes—cystic, fibrocystic or malignant, which, all agree, may demand removal.

Is it to be wondered at that this operation should be resorted to with a frequency which is alarming? Ophorectomy is to-day epedemic in many places on the other and on this side of the Atlantic. Occasionally an authority, such as Thomas More Madden, in Europe, writes that the operation of laparotomy is performed "too frequently" and in unsuitable cases; and Emmet, on this side, stems the tide somewhat by saying that for a year he had seen but one case of disease of the tubes, where the operation might be justifiable, that the patient refused to be operated upon, and got well in a few months. Yet every one knows Emmet's unsurpassed field of clinical observation. In one hospital in Liverpool, says Dr. Carter, no less than one hundred and eleven women had been deprived of one or both ovaries during the year 1885, said to be about one-third of all the patients admitted. This frequency continued in 1886, and led to a commission of enquiry. Canada has many ophorectomists and salpingotomists. The *Upper Canada Lancet* has denounced the epidemic, and at our own Medico-Chirurgical society ovaries are sometimes fished up from the depths of the pocket,—sometimes the vest pocket —and sometimes it has happened that so able a pathologist as Professor William Osler has, after close inspection, declared he found nothing abnormal in them.

The fashion, doubtless, will soon change; diagnosis of affections of the appendages will, in the meantime, have been much advanced; and the question of operation will have been settled in accordance with those general principles, which should guide all prudent and honorable men in its performance or rejection.

This question has a moral and a social as well as a medical aspect; but I do not arrogate to myself any preparedness not possessed by others. I may say, however, I have more than once prevented the operation, and I have been afterwards thanked for it, and another then unborn generation has been advantaged by it. I admit there are cases where a diseased condition of the ovaries or tubes demands surgical interference; but those are not cases where every objective sign is absent, and where the symptoms detailed by a hysterical woman are the only guide."

A CLINICAL LECTURE

Delivered at the Montreal General Hospital, Nov. 20, 1886.

By Francis Wayland Campbell, M.A., M.D., L.R.C.P., London,

Dean and Professor of Practice of Medicine in the Medical Faculty, University of Bishops' College.

ANEMIA.

The term "Anemia" is often very loosely applied; generally speaking it refers to three classes of cases, viz.: (1) Where the blood is deficient in quantity; (2) where it presents certain abnormal qualities; (3) where, owing to a weak heart, the arteries are not properly filled. Very often in cases we find a combination of the whole three. The principal alteration in the quality of the blood depends upon a deficiency or diminution in the number of the red corpuscles. In such cases the salts are in excess, as well as the proportion of water, and the serum, as a result, is of a low specific gravity. The fibrin is generally in excess, and there is a tendency for the blood to coagulate in the veins. Chlorosis is a form of anemia—commonly known as green sickness, from a greenish tint of the skin—met with in young girls who are sufferers from some menstrual derangement. The causes which produce this disease are numerous, but among the principal are the following: Excessive loss of blood at one time, or repeated small losses, as, for instance, losses from epistaxis or nose bleeding, or from hæmorrhoid or piles; constant sedentary employment, especially if this employment is carried on under unfavorable hygienic conditions, as, for instance, in a confined atmosphere, and where the sunlight is deficient, mal-assimilation of food, and where animal food is eaten rarely. Anemia is also met with in women, who are nursing strong and vigorous children, and who prolong lactation beyond the time, which is usual to devote to this function. The disease is met with more frequently in women than in men, and between the ages of fifteen and twenty-five years. The reason of this is the great demands made about the periods of puberty, upon the developing power of the individual. Anemia gives rise to a great many

phenomena, especially rferr able to the nervous system, mental depression, irritability, want of energy, a feeling of lassitude and indolence. Muscular exertion, is distasteful, and, therefore, it is with difficulty that the patient can be induced to take out-of-door exercise. Digestion is often painful, and when not, during the digestive act, the physicial and mental powers are markedly depressed. Palpitation of the heart is very common, as is pulsation of the jugular veins, the latter producing a decided *venous hum*. There is generally also heard functional systolic murmurs at the base of the heart, which are believed to be produced within the aorta and the pulmonary artery. The fact that they disappear under the treatment adopted for the anemic condition, as well as the absence of any sign pointing to organic lesion, denotes their functional character; breathlessness, especially on the least exertion, headache, dizziness and noise in the ears are common symptoms. Neuralgia is apt to occur in various situations, especially over the cardiac region and in intercostal muscles; spinal irritation, and sometimes ovarian irritation are often met with. The various organs of the body are deficient in functional power, in proportion to the lessened amount of blood which goes to them compared to what they receive in health. Anemic patients are pale, often have a waxy look with a clear and transparent skin; or if the patient is chlorotic, then there is a greenish tint to the skin. The mucus membrane is pale, especially that of the lips, gums, and the conjunctiva of the lower eyelid. The sclerotic are clear and bluish, usually the tissues are flabby and wanting in tone. The ankles are often swollen and œdematous, and after standing some time the legs are apt to be greatly swollen. In the morning the eyelids are puffy, the extremities are cold, and the patient is afraid of the slightest cold; leucorrhœa is often present. The pulse is small, feeble and compressible, sometimes it can with difficulty be felt. The urine is pale, excessive in quantity, and of low specific gravity, and very faintly acid. Treatment.—The first thing to be done is, if possible, to find out the cause and have it removed; hæmorrhages must be arrested or restrained, the food must be abundant and varied, and must have a due proportion of animal diet. If the patient is nursing this must at once be discontinued, and it may be advisable to caution against pregnancy, for, strange as it may seem, anemic women are very apt to conceive. Digestion and assimilation must be improved by the administration of those remedies which assist these functions, as Pepsin and Muriatic Acid, given in combination with some of the vegetable tinctures. Great attention should be paid to the hygiene of the individual; fresh air, plenty of sunlight, out-door exercise, avoidance of crowded and hot rooms, and early hours of retiring, and at least 8 hours sleep must be insisted on; change of scene, especially to the sea-side with sea bathing, followed by rapid friction, will do much good. Particular attention must be paid to the bowels, from which there should be a daily evacuation, and the best aperient to use is aloes, given in the form of the well-known, Aloes and Myrrh pill; the great remedy in this disease is iron. In chlorosis, the Mist. Ferri Co., or Griffith's mixture, which you have seen me so often prescribe in the out-door clinic to weak, delicate girls, suffering from amemorrhœa, is the remedy *par excellence*. In ordinary anemia the Pill Ferri Sach. Carb., the Ammonia-Citrate of iron, and Ferrum Redactum are very useful, and have all done good service. They are all preparations which are readily assimilable. The most commonly employed iron preparation is the tincture of steel, better known medically as the "Tincture of the Muriate of Iron." It is an invaluable remedy, and it is the only one I have prescribed for this patient. All these preparations should be taken after meals, so as to be assimilated along with the food. How they act we do not positively know; but the fact that iron is a constituent of the red corpuscles of the blood affords a partial explanation. No matter in what way they act, nothing is more certain than the value of iron in this disease. It is a wise precaution to change from time to time the preparation of iron which is being taken. Wine, especially Burgundy, is useful, it promotes assimilation and diminishes tissue waste. Extract of malt is also a useful remedy. Cod liver oil is recommended, but my experience is not favorable. It is very apt to upset the stomach, already performing its work badly. The patient should be encouraged to look for a cure; but it is well to deal honestly and say that it will take several months to effect it, and that a steady perseverance in the treatment is an absolute necessity.

ACUTE LARYNGITIS.

The patient now before you is, as you perceive, a strong, healthy man, who states that his bed is

placed near a door, where there is a very cold draught, and that he woke up the other morning with a sensation of rawness and tickling, which he referred to the larynx, and a sense of chillness and general malaise or soreness of the muscles. This was followed by cough of a coarse, harsh character, and destitute of expectoration. Then the cough got somewhat loose, and now the expectoration is considerable, and of the character of muco-pus. There is often some aphonia, and there was and still is in this case. This peculiarity of the voice is due to swelling of the mucus membrane, and variation in the tension of the vocal cords. The disease is an acute catarrhal inflammation of the mucus membrane of the larynx, and if moderately mild passes through its various stages in a week; more serious cases may take a month or more.

Treatment.—In severe cases confinement to bed and to a room of a uniform temperature; in mild cases confinement in the house and possibly to a room of uniform temperature. It is well to moisten the air by discharging steam into it; tincture of aconite and vinum antimonialis will often loosen the cough, and hasten the production of secretion from the membrane. A solution of morphia sprayed over the throat often relieves cough. A good combination for the same purpose is tartar emetic, camphorated tincture of opium, and syrup of lactucarium. A mustard poultice for a few minutes to the throat followed by the wet compress. Bromide of potash is a good addition to any mixture. Persons are very apt to become subject to it; such persons should sponge the body every morning with cold water, wear flannels, protect the feet from dampness, and keep up the general health. It is said that an impending attack may be abated by the administration of fifteen grains of quinine, and a quarter to half a grain of morphia. Persons subject to this disease, and who have the means, should live in a dry, equable climate.

Society Proceedings.

MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

Stated Meeting, December 17th, 1886.

J. C. CAMERON, M.D., PRESIDENT, IN THE CHAIR.

Aneurism of the Innominate Artery.—Dr. W. G. JOHNSTON exhibited a specimen of aneurism of the innominate artery, which had eroded the sternum and first and second ribs on right side. The arch of the aorta was unaffected. The right carotid and right subclavian were given off from the sac. The left carotid and left subclavian pressed upon and pushed over towards the left. The superior vena cava was obliterated through pressure at a point two inches above its origin. Azygos vein enlarged to the size of the ring finger, and communicated by a large branch with the superior intercostal vein. Superficial anastamoses of epigastric and hypogastric veins were prominent Hemorrhoidal veins normal.

Dr. Ross said that the patient had been under his observation for eighteen months, and was never recognized as a case of aneurism of the innominate artery, but the symptoms pointed more to the arch of the aorta. The earliest symptoms were pain at the back of neck and shoulder of a neuralgic nature, accompanied with cough. These were relieved by potassium iodide. The patient got better of his first attack, but was frequently laid up in hospital. Enlargement of the superficial veins of the abdomen and thorax was early evident, but lately the superficial veins were tortuous and as large as a man's finger. The patient also exhibited signs of intra-thoracic pressure—such as paralysis of the right vocal cord, rattle in the larynx, and signs of pressure on the trachea.

Dr. R. L. MACDONNELL had had the case under observation for the last fourteen months, both in his wards in the Montreal General Hospital, as well as during the past summer, when the patient was earning his living as a night watchman. There were two points of clinical interest in the case. In the first place, the results of the use of the sphygmograph were deceptive. The tracings obtained showed very marked interference with the blood current through the left radial, hence he had assumed that the aneurism was situated on the arch at a point beyond the giving off of the innominate artery, the fact being that the great dilatation of the innominate artery caused not an impediment through that channel, but by its bulk had pressed upon the subclavian and disturbed the flow of blood to the left upper extremity. In the second place, the relief afforded by the iodide of potassium had been most effectual. Whenever the drug had been discontinued, or whenever the patient had been unable to obtain it, the pain and dyspnœa had increased. This effect had several times been noted, and particularly by the patient himself.

Dr. WILKINS referred to a case in his practice

where there was obliteration of the superior vena cava from clot, which produced no varicosity.

Dr. Ross said one of the early symptoms of the case was a suffused appearance of the face, but the varicosity did not progressively increase; it was sudden and at the last.

Typhoid complicated with Diphtheria.—Dr. JOHNSTON exhibited for Dr. Nealson specimens from a case of typhoid fever complicated with diphtheria. There was a well defined membrane covering the fauces, and extending through the larynx to the smaller divisions of the bronchial tubes. The spleen was enlarged, and there were typhoid lesions in the intestines.

Dr. KENNEDY stated that the patient had consulted him about a week prior to his being sent to hospital. The symptoms present were somewhat anomalous. There was acute bronchitis with congestion of the base of both lungs. On the second day of attendance a rash made its appearance over the face and back, and as there were two children sick with measles in the next room it was looked upon as being a severe case of measles. On the following day the patient exhibited typhoid symptoms, which increased in severity during subsequent days. Typhoid fever was clearly apparent, and the patient was sent to the hospital. The peculiarity of the case appears in the probable co-existence of measles with typhoid fever. The severity of the subsequent symptoms and rapid termination seems to strengthen the possibility of this combination.

Congenital Absence of the Petrous portion of the Temporal Bone.—Dr. R. L. MACDONNELL exhibited the skull of an idiot, which had been dissected at McGill College. There was on both sides deficient development of the petrous portion of the temporal bone. The base of the skull, as seen from within, was flat, the petrous bone not forming the normal ridge between the middle and posterior fossæ. The organs of hearing had never reached development, there being in reality but a rudimentary tympanic cavity. The foramina through which the various nerves passed were small. No previous history of the case had been obtained. The subject presented several other abnormalities. 1. The right common carotid divided into its external and internal division, opposite the lower border of the thyroid cartilage. 2. The left common carotid did not divide at all, but was continued upwards as the internal carotid; the superior thyroid and lingual arteries were given off this common trunk, and the facial from the lingual. 3. The hypoglossal nerve was given off from the pneumogastric. 4. There was deficient development of the teeth. The bicuspids were represented by small round pegs. The molars were ill formed, small, and rounded like milk teeth.

Dr. WILKINS, 1st Vice-President, then took the chair, and

Dr. CAMERON read a paper on "*Aseptic Midwifery.*"

Dr. CAMERON alluded to the absorbing power being specially active in the puerperal state, owing to the denuded placental site, and the many lacerations and abrasions present after labor.

The absorbable septic agents may be conveniently divided into three classes:

1. *Specific microbes*, which multiply rapidly and invade the whole body, even when absorbed in small quantities.

2. *Ptomaines* or ferments, active inanimate septic matters, frequently the product of microbes acting upon the tissues, giving rise to the condition called by some *sapræmia*.

3. *Pyogenic cocci*, which penetrate rapidly and in large numbers, and which may or may not produce metastases. They have the power of setting up suppuration in the tissues with which they come in contact. The most important of them is the *Streptococcus Pyogenes*, the cause of ordinary acute abscess. From cultivation experiments it seems highly probable that, under favorable circumstances, this coccus may rival the anthrax bacillus in virulence and ability to spread throughout the body.

The true relation existing between micro-organism and septicæmia is not yet settled. Some regard micro-organisms as the cause, while others consider them as the result of the septic state.

Whatever difference of opinion may exist *theoretically* as to the cause of purerperal septicæmia, *practically* it seems pretty well agreed that the infectious matter, whether animate or inanimate, comes directly or indirectly from without, and is absorbed through some lesion in the parturient canal. The rational treatment of the puerperal period lies, therefore, in the direction of *asepsis* or *antisepsis*, the exclusion or the destruction of germs.

The *aseptic* or dry method aims to exclude germs, and is theoretically preferable; but, practically, it requires great care, and the lochia sometimes become offensive in spite of every precaution.

The *antiseptic* or moist method aims to destroy

the germs by frequent antiseptic douches or to wash them and their products away. But constant douching is liable to certain risks, notably the absorption of the antiseptic or the production of pelvic inflammation.

The method now in use in the University Maternity, and which, with some slight modifications, he adopts in private practice, is as follows :

1. Strict precautions are taken to scrub and disinfect the hands thoroughly before each vaginal examination.

2. Whenever possible, a preliminary vaginal douche (sublimate) is given at the beginning of the second stage of labor.

3. Great pains are taken to secure and maintain firm uterine contraction after the expulsion of the placenta ; frictions to the fundus are kept up for an hour before the binder is applied.

4. After the birth of the child the vulva is kept covered with a pad of sublimated jute, and is carefully washed with a sublimate solution every time the pad is changed. Vaginal or uterine douches are not employed, except in operative cases, or where the hand has been introduced within the vagina or uterus after the expulsion of the placenta.

5. A few hours after delivery, the vulva and anterior portion of the vagina are thoroughly douched out with a strong sublimate solution, the parts carefully inspected, stitches applied if necessary, and about a drachm of boro-iodoform insufflated into the vulva and ostium vaginæ ; a thick pad of sublimated jute is applied, and whenever it is changed the external parts are washed with a sublimate solution. No further dressing or douching is usually required, the uterus generally involutes rapidly, and the lochia soon fade. If the lochia become offensive, an antiseptic vaginal douche is given, boro-iodoform again applied to the vulva, and the dry dressings continued. This plan works admirably ; the patients are more comfortable, elevations of temperature rare, involution more rapid and complete, and convalescence more satisfactory.

When temperature and pulse rise rapidly from the third to sixth day, and other causes can be excluded, sepsis may be generally inferred. In such cases the septic condition is most frequently due to the presence of decomposing debris in the uterine cavity ; loose shreds and clots are not usually as dangerous as bits of placenta or membrane which remain adherent to the uterine wall, and are, therefore, in more intimate relations with the maternal circulation. A simple uterine douche is generally sufficient to sweep away loose debris, but is unable to dislodge those portions which adhere to the uterine wall. When a uterine douche fails to bring down the temperature in a few hours, it is good practice to follow the German method, viz., pass a blunt curette into the uterine cavity and scrape away the adherent decomposing material. He first saw this method last July in Carl Braun's wards in Vienna ; it was then quite a novelty, having been in use only a few weeks, but has now become a recognized treatment. Since his return he has had occasion to use the curette in several cases. In all of them he scraped away shreds of membranes or decomposing debris firmly adherent to the uterine wall, which repeated douches had failed to dislodge.

The most important points in the antiseptic treatment may be briefly summarized as follows :

1. Great care in the disinfection of hands and clothing.

2. A preliminary vaginal douche (sublimate) when possible.

3. Careful management of the third stage of labor, and securing firm contraction of the uterus.

4. The dry method of dressing.

5. A vaginal douche, if there is rise of temperature or offensive discharge ; if that fails, a uterine douche ; if that fails, immediate curetting of the uterine cavity.

6. If, later on, there is evidence of peritonitis and the presence of pus in the peritoneal cavity, abdominal section with thorough cleansing and draining offer the best chance of recovery.

Discussion.—Dr. KENNEDY agreed with Dr. Cameron in his conclusions. He rarely allowed a patient to have a douche ; always believes in using it in person, as he found nurses, as a rule, unreliable. He could tell by the temperature chart in the hospital which nurse had charge of a ward. He did not believe in the use of a douche, unless there had been operative procedures.

Dr. RODDICK said he was always interested in antisepsis, and had long believed antisepsis to be as important in midwifery as in surgery ; but from his experience, as well as from the facts in the paper, he now regarded it of even more importance in the former. In 1877 he had been asked to give some rules for the guidance of a friend, then superintendent of the Hamilton General Hospital,

and had laid stress on the use of antiseptic injections previous to delivery, as before operations in surgery. The results were good in Hamilton, though only tried for a very short time. He thought the excellent results obtained in the Queen Charlotte Hospital were largely due to the previous washing out of the vagina, as the discharge before labor was often septic.

Dr. ALLOWAY thought no subject was of more importance than aseptic midwifery. Owing to its acceptance the mortality had notably decreased during the past five years. It is rare now to hear of septic cases, much less of death. For the last five years he had been an antiseptisist, and had not witnessed a single death during that period, though, through nurse or midwife examining patients, he has seen many cases of septicæmia. He cited, as an example, where one midwife had lighted up several septic cases. Dr. Roddick's importation of Listerism had induced him long ago to apply it to midwifery cases. Dr. Cooper of New York reports 40,000 cases in Vienna, with results similar to those stated by Dr. Cameron. He (Dr. Cooper) insists on using corrosive sublimate whenever there is any abrasion of the vagina.

Dr. TRENHOLME said he had never had a case of septicæmia in his practice, though he never uses a tube, and believes this result due to his great care in removing the membranes and placenta entire.

Dr. SHEPHERD called attention to the results, as stated by Dr. Cameron, of removing by the curette any adhering portions of the placenta as soon as septic symptoms appear.

Dr. CAMERON, in replying, stated that the use of the jute pad and iodoform to the vulva after delivery was analogous to the mode of stopping a test tube in germ culture. There is always danger of carrying in air with the douche, and for that reason prefers the dry dressings.

Progress of Science.

OPHTHALMIA NEONATORUM.

ITS TREATMENT.—Dr. J. E. Weeks, of New York, one of the resident staff of the Ophthalmic and Aural Institute, writes, in the Medical Record, on ophtholmia neonatorum, that the plan of treating this affection he has found most rational is as follows, for the careful carrying out of which a trained nurse or a careful attendant is essential:

If only one eye is attacked, the well eye must be carefully guarded against the possibility of infection from the diseased eye. This is done by cleansing both eyes frequently with absorbent cotton or clean sponges, and clean, cool water, weak solutions of sublimate, boracic acid, etc. Sealing the eye in infants is very unsatisfactory; it may be done with benefit in adults. *Constant* cold applications to the lids should be made. I find the following method most efficient: Pieces of linen, twelve or eighteen in number, are folded into three layers, so as to form squares of an inch and a half. These squares are dampened and spread on a cake of ice. The nurse in attendance changes the pieces of linen to and from the eye sufficiently often to have a cold piece *always* resting on the lids. These applications are kept up *constantly* until the swelling of the lids subsides, and until the discharge has almost entirely ceased, usually from three to seven days. The plan of making the cold applications at intervals of two or more hours is certainly not advisable in these cases, as the temperature of the lids rises as soon as the cold is removed, and the development of any living germ in the tissue of the conjunctiva is resumed. I have witnessed the increase of inflammatory action in cases of this kind when the intermittent plan was followed. The secretion is removed from the conjunctiva by careful washing with cold or cool water, a clean sponge or absorbent cotton, usually every twenty or thirty minutes—more or less frequently according as the secretion is more or less profuse.

In these conditions applications of a one to two per cent. solution of nitrate of silver are made to the surface of the conjunctiva every morning and evening, care being taken not to make the solution sufficiently strong to cause an increase in the inflammation of the lids when it is applied. The applications are made in the following manner: The lids are everted, and the solution of silver is brushed upon the conjunctiva freely with a soft camel's-hair brush. After the silver has remained in contact with the conjunctiva from fifteen to thirty seconds, it is washed off with a very weak solution of sodium chloride or simple water.

The above-mentioned applications may be made in all stages of the disease, without regard to the condition of the cornea. If corneal ulcers exist, one or two drops of a one per-cent solution of the sulphate of atropine should be instilled between the lids two or three times a day. I find that the gonococci are present so long as the purulent discharge continues.

If the above plan of treatment be carefully carried out, I am confident that no eye need be lost by any form of gonorrheal ophthalmia, if the treatment is commenced before the cornea becomes involved, and that corneal complications will be very rare. In nearly every case the progress of the disease will be arrested from the moment that treatment is begun. Canthotomy, Critcher's operation of a perpendicular incision through the mid-

dle of the upper lid, or scarification, I deem harmful and entirely unnecessary.

BISMUTH SUBNITRATE IN FŒTID PERSPIRATION OF THE FEET.

Vieusse recommends the subnitrate of bismuth in the treatment of fœtid perspiration of the feet, and concludes as follows:—(1) Profuse perspiration of the feet, whether accompanied by pain or fœtidity, is easily cured by the application with slight friction of subnitrate of bismuth upon the diseased parts. (2) In opposition to the opinion generally held, according to which the suppression of exaggerated perspiration may produce numerous accidents of metastasis, observation shows that the cure of this affection has not been followed by unfavorable results, and that if these are observed they should be attributed to other methods of treatment hitherto employed. (3) In the cure of this disease, subnitrate of bismuth appears to exercise a purely local action, rendering the superficial cuticular structures firmer and more resistant. The remedy, perhaps, exerts an action also upon the sudoriparous glands and sebaceous follicles, changing the quality and quantity of their products, and, possibly, as a result of the changes produced in the part with which it comes in relation, modifies more or less profoundly the capillary circulation. (4) In certain cases the remedy suppresses only temporarily the profuse perspiration of the feet, but causes the fœtid odor, as well as the pain, which is the consequence of the exaggerated secretion, to disappear permanently. *Rivista Internazionale de Medecina e Chirurgia.*

SPASMODIC ASTHMA—ITS TREATMENT.

This young lady is troubled with cough and shortness of breath, spells of which come on suddenly during the night. She has suffered from this affection for four years, and the attacks show a tendency to recur on Saturday nights. She is very liable to catch cold, and she is then more apt to suffer with the shortness of breath. I learn that several members of this young lady's family are affected in the same way. She is suffering, as you would infer from this history, with spasmodic asthma. When the spasm is not present, nothing abnormal is heard on auscultation. If, as often happens, emphysema or bronchitis coexists with the spasmodic tendency, the signs due to these conditions will be found. During the existence of an attack there would be found wheezing and whistling sounds.

I shall make this case the basis of a few remarks on the treatment of spasmodic asthma. The man who has studied asthma more thoroughly than perhaps any other is Hyde Salter, whose work on asthma contains all that is known about this disease. It is like Anstie's work on neuralgia—a complete text-book on the subject. Salter says that every case of asthma has a climate which will cure it, provided we can find that climate. We have no means of judging beforehand what climate is going to cure any particular case, but in the majority of instances, the dusty, dirty, smoky air of the city is better for asthmatics than the pure air of the country. If we can find the appropriate climate the patient will be free from his asthma. It might also be said that in the majority of such cases as this, of hereditary, spasmodic asthma, unless we can find the appropriate climate, the patient cannot be cured.

Apart from the consideration of climate, the treatment of asthma divides itself into two parts, which are essentially distinct: first, the treatment of the paroxysm; and second, the treatment to prevent the recurrence. In the treatment of asthma, always use single remedies, for asthma is peculiarly a disease which is helped by single remedies; that is to say' you will find certain cases that will obtain relief only from tobacco; and, again, cases will be found that are relieved by lobelia, and by nothing else. It would be folly to give a perscription containing both these drugs when only one is going to be of service.

In the treatment of the paroxysm, almost anything will succeed in some cases, while there are others in which nothing affords relief. It would take more than the time which we have at our disposal to enumerate all the drugs that have been successfully employed to relieve a paroxysm of asthma. Tobacco is one of the very best, and, in the present case, the attacks have been relieved by smoking a cigarette. There is, of course, a great likelihood that a patient using tobacco for this purpose will acquire a fondness for the weed; but a person who uses tobacco to stop an asthmatic attack must not use it at other times, or it will lose its effect. There is one exception to this rule, and that is, that in some rare cases habitual smoking prevents the recurrence of the attack, and as long as the patient smokes two or three cigars a day, he will be free from the asthma, but as soon as the tobacco is stopped, the paroxysms recur. Sometimes a few whiffs of the cigar will stop the attack; but, as a rule, smoking must be continued until poisonous effects begin to be manifest, in the depressed circulation, the cold sweat, and the nausea, perhaps with vomiting. In most cases this is a harmless remedy, but where there is feebleness of the heart, tobacco must be avoided.

Lobelia closely resembles tobacco in its action, and my remarks with reference to the latter drug would equally apply to lobelia. This, however, helps some cases in which tobacco fails, and fails in some cases that tobacco relieves. A common remedy is the smoking of stramonium leaves. These may be made into cigarettes, either with or without tobacco, and have been found of service. In the same way the leaves of hyoscyamus, and belladonna have been found of value. Probably the remedy most frequently used is saltpetre paper. A saturated solution of the potassium nitrate is prepared, and in this is steeped blot-

ting paper ; the paper is then dried and cut into strips. These strips when lighted burn slowly, and the patient inhales the smoke. Sometimes a minute proportion of arsenic is added to the solution. This is particularly recommended by Trousseau. Stramonium, hyoscyamus and belladonna are also added at times. Dr. F. E. Stewart has recommended cigarettes of cocoa leaves and tobacco, which probably would be useful. The fact that smoking so many different substances gives relief has led some observers, and among them Germain Seé, to ascertain whether there is not something in the smoke itself to which the beneficial action is due. As a result of these investigations we have a comparatively new remedy, pyridine. This is used in quantities of a drachm, vaporized, on a hot plate, in a close room. This is one of the most efficient remedies we have in a paroxysm of asthma. An emetic is often efficient. Tartar emetic is of service for this purpose. The inhalation of ether or of ethyl bromide is sometimes employed. Amyl nitrite is one of the most elegant preparations which we have for controlling the asthmatic attack. The use of nitro-glycerin, in the dose of the hundredth part of a drop, has been recommended. Moral and mental influences have often been successful in checking the attack. I have read of a patient suffering from an attack of asthma, which did not respond to any treatment, who, being alarmed by a sudden cry of fire, jumped out of bed and rushed down stairs; the asthma instantly and entirely disappeared.

One of the most efficient remedies for the relief of the attack is chloral hydrate, in doses of twenty or thirty grains. This is contraindicated when the heart is weak. Hypodermic injections of morphia are of value, especially when the morphia is combined with atropia. I, however, do not recommend this for constant use ; for the danger of the morphia habit is infinitely greater than the danger of the asthma. In some cases stimulants are employed, brandy occasionally being given in lethal doses. I mention this plan of treatment only to condemn it.

It is better for the patient to have his asthma than to run the risk of a more serious condition.

For the purpose of preventing the return of the paroxysm, a great many drugs have been recommended. Arsenic, continued for many months, in doses just short of those which produce the characteristic poisonous effects, has, perhaps, been extolled more highly than any single remedy. Ammonium bromide is favorably mentioned. The bromides are eliminated by the bronchial mucous membrane, and are supposed to exert a local anæsthetic effect. The bromide of potassium has also been employed for the same reason. Cimicifuga is another remedy which deserves far more attention than it has received. Like many other of our indigenous plants, it has been neglected for the old standard drugs brought over by our forefathers, for the simple reason that the latter are better known.

A very good remedy, in some cases, is quinine. When the paroxysm returns with such periodicity that we are able to say when an attack is to be expected, this drug will often prevent its recurrence. If the paroxysm be expected at one o'clock in the morning, a full dose of quinine should be administered at nine o'clock the preceding evening, so that its effects will be manifest at the time of the expected attack. While quinine prevents the paroxysm, I have never been able to satisfy myself that the continuous prevention of the attacks, even for months at a time, had much effect in removing the tendency to the disease.

Another remedy which has been introduced within the past few years is grindelia robusta. For the past three weeks, this lady has been taking the fluid extract of grindelia robusta in half-drachm doses. She states that during this time she has been better, and has had but two slight attacks.

There is one more point to which I desire to allude in connection with this subject, and that is that it has recently been found that in a certain number of cases of spasmodic asthma, there is hypertrophy of the Schneiderian mucous membrane, and that this is the starting point of the asthmatic attacks. This patient has been examined by Dr. Barton, who has found hypertrophy of the nasal mucous membrane, which he is removing with the galvano-cautery. By removing this diseased tissue we do away with one of the possible causes of the asthma. This is a comparatively recent advance, and, I think, a very important one, in the treatment of this affection. If the paroxysms continue after the removal of the hypertrophied patches in the nose, we should conclude that in all probability there is hypertrophied mucous membrane in the trachea and bronchi. Can we reach this? We cannot reach it with the cautery as we can in the case of the nasal mucous membrane, but by the use of iodine and carbolic acid by inhalation persisted in for months, I think that this condition of the tracheal and bronchial mucous membrane can be removed. Under the use of these agents I have seen hypertrophies in the throat disappear almost as quickly as they would have done under the use of caustics.

In the present case, we shall continue the treatment with the grindelia robusta as long as it has a good effect. It is good practice when you have a remedy which appears to be benefical, to continue it until its good effects cease before changing to another. For the treatment of the paroxysm, she will continue the use of tobacco until she begins to like it, when we shall resort to saltpetre paper.

FISSURES OF THE TONGUE.

In some people, especially where gastric disturbances are present, the tongue suddenly becomes fissured all over, without, however, becoming coated, changing its color, or losing its moisture. Prof. Schwimmer (*Wiener. Med. Woch.* 10, 1886) had the opportunity to experiment on some cases at

his clinic. Although he tried chromic acid, which had been recommended by Vidal, and though he applied iodoform, which Dr. Unna, a dermatologist of Hamburg, had greatly praised, in none of his cases the tongues evinced any improvement. If anything, they became worse, especially under iodoform. As the patients were greatly annoyed by this morbid state of their tongues, Prof. S. tried a series of remedies in the hope to bring about some alteration, but utterly in vain; even Kaposi's treatment with nitrate silver was useless. Some improvement was noticed after the applications of soda solutions; and the lactic acid, first employed by Schiff, gave the patients decided relief, and the latter in one case almost established a cure. Finally S. used papayotin, and the result was surprising. In every case an amelioration was at once noticed, and within a few weeks a perfect cure was obtained. S. applies the papayotin as follows:

℞. Papayotin, .05 to 1.0 (8-16 gr.)
Aq. destill.,
Glycerin, aa 5.0 (80*m*).

This solution is applied with a camel's hair brush from 2 to 6 times every day, after the parts have been previously well dried. The effect is not a macerating one, as one would think from the action of the drug on digestion, but it acts on the parts deprived of their epithelium, and causes a renewal of the latter.

In 25 cases, many of which were of many years' duration, a complete and permanent cure was established in all with the exception of one, where a syphilitic dyscrasia existed, but where specific treatment brought about no result either; but even in this case a great amelioration was obtained.

THE DIETARY OF BRIGHT'S DISEASE.

By J. Milner Fothergill, M. D., Edin., Hon. M. D. Rush, Ill.

The importance of the dietary in Bright's disease is all the greater in that medicines exercise comparatively little influence upon its progress.

The form of Bright's disease here treated is the chronic one, where the kidneys are "granular," "contracted," "gouty" or "cirrhotic." This is a slow development of connective tissue (a parenchymatous inflammation) throughout the structure of these organs, which contracting—as is its nature—destroys the secreting and tubular portions. Some portions are destroyed as regards function, while others remain normal and uninjured. At last the destruction is so extensive that the kidneys become quite inadequate to carry out their duty, and the organism perishes.

The opinion of the profession (as regards its members under fifty years of age) is that the main cause of this chronic inflammation is the output of urates by the kidneys. Mammalian kidneys have the soluble urea as their form of nitrogenized waste, while urates belong to animals with a three-chambered heart and a solid urine. When, then, the mammalian liver forms this primitive urine the kidneys become injured by casting it out. Long ago Dr. George Johnson, F. R. S., the respected professor of the Practice of Physic at King's College, and a recognized authority on Kidney disease, wrote: "*Renal degeneration is a consequence of the long-continued elimination of the products of faulty digestion through the kidneys.*"

Recognizing, as we do, that under certain circumstances (often mental strain) the liver falls back upon this primitive urinary stuff, it is obvious that the rational plan of meeting the difficulty is to reduce the albuminoid elements of our food to the needs of the organism rather than the cravings of the palate. That bite of solid meat so acceptable to the Anglo-Saxon has led him to cultivate flocks and herds to a point of excellence unattained by other races. The beef and mutton in other countries will not furnish solid joints; it has to be hashed and stewed and made into ragouts in order to be palatable. Even a leg of mutton stuffed with onions is but indifferently good. A "Wiener Schnitzel" is a veal cutlet and the continental equivalent of our steak and chop—not forgetting *Fillet de Bœuf*. The "plain roast and boiled," the pride of the Anglo-Saxon housewife and cook, are largely responsible for the prevalence of this form of Bright's disease amidst Anglo-Saxon people.

This statement is not rashly hazarded as a specious and ready generalization. It is the outcome of careful thought on the matter.

In England at least the impression exists that simple fare—"plain roast and boiled," is innocuous. It is a murderous fallacy! It is just the abundance of meat—sapid, palatable, readily prepared, stimulating—that is the bane of so many men. It would not be too sweeping a generalization to say that the lady who dines at home is comparatively free from Bright's disease while, the business man who takes his midday meal at a restaurant, and dines at home in the evening, is the victim of Bright's disease *par excellence*. As he looks down the ménu for his lunch his eye lights upon dish after dish, in the composition of which lean meat forms the integral factor.

This fact cannot be impressed too distinctly on the mind. To traverse the statement by pointing to the fact that many men notoriously consume large and unusual quantities of such animal food with apparent impunity, is merely to state that the human liver is in many instances equal to converting into urea the whole surplusage, or *luxus consumption* of albuminoid matter. It leaves unaffected the fact that when the liver is unequal to such complete conversion, and reverts to the formation of urates, it becomes a wise and prudent measure to reduce the albuminoid elements in the dietary to the wants of the body.

There is a strong impression abroad among medical men, who have paid great attention to the

subject, that the lean of the larger animals has a stronger tendency in the metabolism of albuminoids to form urates than any other forms of albuminoids. This impression must just be taken for what it is worth. It is sufficiently a matter of faith with the writer to inspire conduct, as his butcher realizes to his cost; while the fishmonger and the greengrocer benefit by it.

The *entrées* and made dishes of French cookery are far less pernicious than "the roast beef of old England," and its congeners. They consist to some extent of lean meat, true; but they also contain notable quantities of oil and vegetables.

The man who is held to be the subject of chronic Bright's disease should banish the solid joint from his table; except, may be, on Christmas Day. The steak and chop should be indulged in rarely, and, when eaten, not be devoid of fat. The veal, or rabbit, or beefsteak pie should not be without a due proportion of fat.

The same may be said of the meat pudding, the hash, or the Irish stew, and the currey. He should have one vegetable course at dinner, and, what is more, ought religiously to partake of it.

White meats, as chicken, are less objectionable than brown meats; but, after all, it is but a matter of comparison. One patient obeyed his instructions to the letter, but grossly violated them in the spirit. He was a blue-blooded Patrician, inheriting an insufficient liver—illustrating the truth of the adage, "the fathers have eaten sour grapes and the children's teeth are set on edge"—whose urine was laden with lithates. Meat being forbidden, but fowls permitted; he explained that he "had passed the joint but laid into the turkey," as a gastronomic rule. A sharp attack of articular gout opened his eyes for him.

Of what, then, should the dietary of the man with chronic Bright's disease consist?

Breakfast: Oatmeal or hominy porridge, hominy fritters, followed by a little fish with plenty of butter to it; or a slice of fat bacon, or pork. Fat, fish and farinaceous matters. Hominy and fat pork for the less affluent.

Lunch or supper: Mashed potatoes well buttered. Other vegetables well buttered. A milk pudding made without an egg. Biscuits of various kinds, and butter, with a nip of rich cheese.

Dinner: Soup containing plenty of vegetable matter, broken biscuit, or sago or vermicelli. Cream, in lieu of so much strong stock, should lurk in the soup tureen, especially in white soup. This should be followed by fish in some form; a course of vegetables, as stewed celery, chopped carrots, a boiled onion, leeks, nicely prepared potatoes, as "browned potatoes" à la Marion Harland, asparagus, or "scolloped tomatoes" and corn or "boiled corn." Then should follow apple-bread pudding. Maud's pudding, bread and raisin pudding; and, if the digestion can be trusted, roly-poly pudding, sweet pudding and fruit pies. Stewed fruit with creeled rice, rice milk, or other milk pudding is good, or better still, cream. Then comes the biscuit, or crackers and butter. Dessert, with its many fruits should never be omitted.

The reader who prefers something tasty and piquant will exclaim this is too much in "the baby-food," or the "nursery line" for him, and asks for some game, or some toasted cheese. Well! in strict moderation let it be—as the tasting of forbidden fruit.

Where something more sapid is fancied let it be anchovy toast, herrings skinned, cut into inch lengths and fried on toast, sardines on toast; possibly, a little caviare, herring roes and millets, or mushrooms. Certainly Paté de Foie Gras—all prejudices to the contrary notwithstanding.

There is a great deal of toothsome eating in a dietary suitable for a man with Bright's disease, all the same.

Eggs, ordinary cheese, and fish roes, are all highly albuminous, it must be remembered.

Fowls, chicken, game are meats less objectionable than joints; but again it is a matter of comparison.

From what has been stated above, it is clear that "hotel dietary" is as unsuitable for the person with Bright's disease as it is to the dyspeptic. Travel is not prudent for either. They had better keep to a private house with cookery adapted to their special wants.

Then as to drink. The interest in the matter centres round alochol. Other than alcoholic beverages are beyond contention; except, perhaps, milk, which contains a notable proportion of albumen in the form of caseine. If it be taken as a beverage, or as a food adjunct its composition must be borne in mind, and the other foods be sparing in albumen.

Probably light wines are practically innocuous, that is in moderate quantities; as is cider. Possibly the same may be said of the light lager beers, as Pilsener; but ales brewed on the English plan exercise a malign influence upon the liver. This applies to porter and stout. Then as to spirits and waters, aërated or other! Opinions may differ. There is much less Bright's disease in Scotland, where oatmeal porridge and whiskey go together, than in England, with its beef and beer. The reader can draw the influence.

There is no valid proof that alcohol in moderation tends to add further to the morbid process; which, bit by bit, is slowly and insidiously working the ruin of the kidneys. On the other hand, beef-tea often does much mischief. The meat extractives it contains, though not food, are at the head of the descending series, ending in uric acid and urea, and add to the work of the kidneys.

One exquisite beverage, palatable and nutritive; is made with some malt extract and aërated water. Unfortunately, in order to prevent fermentation, a malt extract has to be reduced to the consistency of treacle. This viscidity renders it most troublesome to handle. The readiest plan is to get the cook every morning, or second morning, to dilute a certain amount of malt extract with an equal

quantity of warm water, and beat it to a syrup. Fill a tumbleone-third full with the malt syrup, fill with aërated water. This is a glorious malt liquor for a teetotaller—or any other man.—*Journal of Reconstructives.*

MANAGEMENT OF SIMPLE CONSTIPATION.

Sir Andrew Clark thus writes in the *Lancet*, January 1:

The untoward consequences of constipation are always considerable and sometimes serious; but greater than they—greater than the anæmia, the blood-poisoning, the headache, the nervousness, and the heart disorder, which arise out of fæcal retention—are the untoward consequences of ingnorant and unskillful domestic management.

For two days a patient has had no relief to the bowels. He has been travelling, or he has changed his diet, or his accustomed routine has been in some other way interrupted. The subject is seriously considered; in the light of an excited self-consciousness impending dangers are seen, and forthwith he determines to take "a dose." But the taking of doses is an inconvenient and a disagreeable procedure, and so it is settled that the dose shall be a good one—such a one as will speedily and effectually overcome the constipation and relieve the patient of his trouble. The dose is taken, the bowels (small, perhaps, as well as large) are emptied of their contents, the object of treatment has been achieved, and all for a time seems well. But the next day arrives, and there is no fresh movement of the bowels; even a second day passes, and they are still inactive. The patient is more uncomfortable than he was before he took his "dose." What is to be done? Matters cannot continue as they are. Plainly the medicine first employed has confined the bowels, and so another must be taken which shall be free from this disadvantage. The other is taken; again the bowels are freely moved, and a liquid, light-colored mucoid, and feculent discharge attests the success of the new endeavor. But the bowels fail to resume their periodical discharges; the patient becomes worse than ever; again he flies to artificial help or relief; again he is disappointed in recalling nature to her own ways; and at last the bowels, robbed of their normal conditions of action, and exhausted by frequent irritation refuse to act at all, except under the spur of strong aperients frequently repeated. With few exceptions, no person has passed through this experience and fallen under the tyranny of aperients without finding his life invaded by a pack of petty miseries which lower his health, vex his temper, and cripple his work. Now, for the most part, all these troublesome consequences of constipation may be avoided by attending to the conditions of healthy defecation. The chief of them requiring consideration at this time, and assuming the integrity of the nervo-muscular apparatus of the bowels, are plenty of solid and liquid, digestible food, a fair amount of refuse matters in the colon, regard to the promptings of nature, daily solicitation at an appointed time, the co-operation of expectation and will, and contentment with a moderate discharge. I propose to discuss briefly each of these conditions.

1. Plenty of solid and fluid digestible food. People leading a sedentary or a society life become disposed to eat too fine foods, and to drink too little liquid. Among the results of such habits are a general want of nervo-muscular vigor, a deficiency of intestinal secretion, and an insufficient amount of refuse matter in the bowels to secure daily relief. To correct this without the help of drugs, coarse and irritating foods are taken. For a day or two, perhaps, they succeed; but after a time they provoke catarrhal irritation, and either increase the constipation or bring about lienteric diarrhœa. As a rule, it is a practical error to treat constipation by means of hard, indigestible, and irritating articles of food.

2. A moderately full colon is essential to the sufficient periodical discharge from the bowels. It is true that the ordinary peristaltic action of the bowels is automatic, and substantially independent of external stimulation; but it is, I think, equally true that for the stronger peristaltic action which, accompanied by inhibition of the associated lumbar centre and relaxation of the anal sphincter, issues in normal defecation, an external stimulus, the of an adequate amount of retained fæces, is necessary. If by an aperient, or by any other means, the colon is more or less completely emptied of its contents, defecation will be suspended until the colon becomes again more or less full; it cannot act independently of the appointed conditions of action; it cannot make bricks without straw.

3. Regard to the promptings of nature. When the lower part of the sigmoid flexure is full, sensory impulses are sent to the nervous centres, and these are responded to by discharges which not only excite vigorous peristalsis in the upper part of the colon and solicit cooperation of the will, but tend to inhibit the lumbar centre and to bring about relaxation of the anal sphincter. The conditions of defecation are present, and it needs only a patient effort of will and concurrent expectation to originate and complete the operation. But when attention to these promptings of nature is denied they cease for the time; and although they recur and suffice for action, the denial, if often repeated, blunts the sensibilities of the parts concerned, deprives us of the normal intimations of the need for relief, and brings about a form of constipation difficult to cure.

4. Daily solicitation of nature at an appointed time. It has been found that for the great majority of people the most favorable, and also the most convenient, time for procuring relief to the bowels is after breakfast; and it is one of the greatest helps to sufficiency and regularity of action that the daily solicitation of nature should be practiced at that time. In order that both solicitation and action should become developed into a habit, it is

necessary that nature should not be listened to at any other than the appointed time. And in this precept there is no contradiction of the statement made in the previous paragraph; for it is not the temporary and exceptional denial of nature with the view of establishing a regular habit of defecation—it is the repeated denial of nature with no such object in view which blunts the reflex sensibilities of the parts concerned, and brings about an obstinate constipation.

5. The co-operation of expectation and will. Many persons seek relief to the bowels without taking any pains to secure success. With some persons, indeed, such pains are unnecessary. A certain automatism has been established; and it needs only time, place, and position to set it in successful motion. But in persons whose defecation is difficult, direct attention, expectation, and effort are essential, and when patiently practiced seldom fail. The practice of slight alternate contraction and relaxation of the anal sphincter sometimes provokes exceptionally active peristalsis of the lower colon; and so, with concurrent effort, secures relief which could not otherwise be obtained.

6. Contentment with a moderate discharge. Ignorance of the average amount of fæces required for the daily healthy relief of the bowels is one of the main causes of constipation, the unnecessary use of aperients, and the evils that arise from both. For a man of average weight, consuming an average amount of food, the average amount of fæces ready for discharge in twenty-four hours is about five ounces. This should be formed, sufficiently ærated to float, and coherent. According as the cylinder is moist or dry it will measure from four to six inches in length. Now, many people expect to have a much more abundant discharge, and are dissatisfied or anxious if they do not get it. They complain of their insufficient relief, and take aperients to make it larger. For a day or two larger discharges are procured, but then, when the reserves of fæces are removed and the colon is empty, and the conditions of defecation no longer exist, more or less complete inaction of the bowels ensues, constipation (as it is here erroneously called) becomes confirmed, new and stronger aperients are had recourse to, and at last the patient falls into a pitiable condition of physical suffering and moral wretchedness. And from this condition there is no escape through the complete suspension of aperients, the renewal of obedience to physiological laws, and a courageous patience in waiting upon nature.

I will conclude these imperfect remarks by putting down as briefly as possible the instructions which I ask my pupils to give to their patients for the management of simple constipation:

1. On first waking in the morning, and also on going to bed at night, sip slowly from a quarter to a half pint of water, cold or hot.

2. On rising, take a cold or tepid sponge bath, followed by a brisk general toweling.

3. Clothe warmly and loosely; see that there is no constriction about the waist.

4. Take three simple but liberal meals daily; and, if desired, and it does not disagree, take also a slice of bread and butter and a cup of tea in the afternoon. When tea is used it should not be hot or strong, or infused over five minutes. Avoid pickles, spices, curries, salted or otherwise preserved provisions, pies, pastry, cheese, jams, dried fruits, nuts, all coarse, hard, and indigestible foods taken with a view of moving the bowels, strong tea, and much hot liquid of any kind, with meals.

5. Walk at least half an hour twice daily.

6. Avoid sitting and working long in such a position as will compress or constrict the bowels.

7. Solicit the action of the bowels every day after breakfast, and be patient in soliciting. If you fail in procuring relief one day, wait until the following day, when you will renew the solicitation at the appointed time. And if you fail the second day, you may, continuing the daily solicitation, wait until the fourth day, when assistance should be taken. The simplest and best will be a small enema of equal parts to olive oil and water. The action of this injection will be greatly helped by taking it with the hips raised, and by previously anointing the anus and the lower part of the rectum with vaseline or with oil.

8. If by the use of all these means you fail in establishing the habit of daily or of alternate daily action of the bowels, it may be necessary to take artificial help. And your object in doing this is not to produce a very copious dejection; your object is to coax or persuade the bowels to act after the manner of nature by the production of a moderate more or less solid formed discharge. Before having recourse to drugs, you may try, on waking in the morning, massage of the abdomen, practiced from right to left along the course of the colon; and you may take at the two greater meals of the day a dessert-spoonful or more of the best Lucca oil. It is rather a pleasant addition to potatoes or to green vegetables.

9. If the use of drugs is unavoidable, try the aloin pill. Take one half hour before the last meal of the day, or just so much of one as will suffice to move the bowels in a natural way the next day after breakfast. If it should produce a very copious motion, or several small motions, the pill is not acting aright; only a fourth, or even less, should be taken for a dose. When the right dose has been found it may be taken daily or on alternate days, until the habit of daily defecation is established. Then the dose of the pill should be slowly diminished, and eventually artificial help should be withdrawn.

The aloin pill is thus composed.

R.	Aloinæ,	
	Extr. nucis vom.,	½ gr.
	Pulv. sulph.,	½ gr.
	Pulv. myrrhæ	½ gr.
	Saponis,	½ gr.
	Fiat pil. i.	

If the fæces are dry and hard, and *if there is no special weakness of the heart* half a grain of ipecacuanha may be added to each pill. Should the action of the pill be preceded by griping and the character of the action be unequal, half a grain of fresh extract of belladonna will probably remove these disadvantages. If the aloin pill gripes, provokes the discharges of much mucus, or otherwise disagrees, substitute the fluid extract of cascara sagrada, and take from five to twenty drops in an ounce of water, either on retiring to bed or before dinner. And when neither aloin nor cascara agrees, you may succeed by taking before the mid-day meal two or three grains each of dried carbonate of soda and powdered rhubarb.

The exact agent employed for the relief of constipation is of much less importance than its mode of operation. If, whatever the agent may be, it succeeds in producing after the manner of nature one moderate formed stool, it may be, if necessary, continued indefinitely without fear of injurious effects. But, treated upon physiological consideration, I have the belief that in the great majority of cases simple constipation may be successfully overcome without recourse to aparients.

DIET IN THE TREATMENT OF EPILEPSY.

By A. E. Bridges, London, B. A., and B. Sc; of Paris, M.D., Edin.

Epilepsy, like hydrophobia, a disorder of the nervous system without pathognomonic microscopic lesion, has for many years possessed a fascination for the scientific pathologist, who, according to his individual experience and irrespective of that of his brethren, has sought to classify the disease, bestowing on each class a formidable scientific name.

Ignoring such classifications, I shall, for the purposes of chemical observation, and more especially for that of treatment, divide epilepsy into the following four great classes :

1st. Simple epilepsy—rare in women.

2d. Mixed epilepsy (hystero-epilepsy)—rare in men.

3d. Epileptiform seizures—result of course from brain lesion, injury to head, tumor of cerebrum, etc.

4th. Reflex epilepsy—common in children, less frequent in woman, rare in men.

My observations as regards the effect of diet in epilepsy will refer almost exclusively to class 1, the most hopeless, and, therefore, from a medical standpoint, the most interesting form of the disease. They will, however, apply in a sense, restricted according to the peculiarities of each case to the other classes which I have enumerated.

The frequent occurrence of the convulsive seizures which occur in the course of epilepsy is due, there is every reason to suppose, to an explosion of what we are compelled to call, for want of a better term, nerve force.

Now, we know that of the four main elements of which the human body is composed, carbon, hydrogen, oxygen and phosphorus, nitrogen is the one which has the fewest and weakest chemical affinities, and we also know that exactly, by reason of this chemical peculiarity, nitrogen is a necessary element in all the most powerful explosives. We have, therefore, just reason to conclude that it plays a very important part in those nerve explosions of which we have spoken. It is then quite as reasonable to limit in epilepsy the amount of nitrogen supplied by the medium of our food stuffs, as it is to limit the supply of articles containing sugar and starch in diabetes mellitus. Not only, however, may we limit the actual amount of nitrogen taken, we may give it in that form in which it is apparently digested and broken up in the easiest manner. It is a fairly well-attested scientific fact, and one that accords with personal experience that the nitrogenous compounds which we use as foods, and which are supplied from the vegetable kingdom, are more easily broken up and assimilated by the economy than those derived from the animal kingdom. The reason of this difference is one not very easily explained. The best explanation, perhaps, that can be offered is that in regard to the digestibility of foods in general, it may be said that the more concentrated a food is the more difficult is it of assimilation. Eggs and cheese, two substances exceptionally rich in nitrogen, are familiar proofs of this. The same, to a lesser extent, may be said of meat. I am well aware that peas and beans contain a larger percentage of nitrogen than meat; but, on the other hand, those substances are mixed with a far larger proportion of carbon, and, furthermore, as compared with meat, do not enter nearly so largely into ordinary vegetarian diet as does the latter in the ménu of a mixed feeder—furthermore, more water is used in their cooking, and is absorbed by them and eaten with them than is the case with meat, and they are, therefore, contrary to what we might expect at first sight, really more dilute foods than are the various fleshy articles of diet. The same applies, but with greater force, to the cereals.

My argument may, however, seem to tell against myself, for it might be said : well, since animal albuminoids are less digestible than vegetable ones, it follows that less of the first will be taken up, with the result of a decreased supply of nitrogen to the body at large. The conclusion, however, is incorrect. The result of the deficient digestion of any albuminoid is, partly at least, that imperfectly prepared peptones are liable to be absorbed into the system, and it is mainly with the further conversion of these that the liver has trouble.

I appeal from theory to practice. Take a case of feeble digestion, due to general atony, and not to any special digestive derangement, and give to that individual a meal of meat and bread, and he will very shortly afterwards develop the well known symptoms of atonic dyspepsia. Give to the

same man a dish of Revalenta, of crushed-wheat meal, or of oatmeal porridge with bread, and let such meal contain exactly the same amount of nitrogen as in the one composed mainly of meat, and he will, as a rule, suffer little, if at all. This is the real secret of the enormous sale in this country of Revalenta Arabica. I have at present many dyspeptics under my care, who take that form of diet without the least inconvenience, and to whom the painless digestion of meat is apparently impossible.

Among substances, however, that are derived from animals, and which contain nitrogen, milk is the only one that is an exception to the above rule, and this simply because the nitrogen it contains is in a very dilute form.

We, therefore, come to this conclusion: In epilepsy we have a disease in which it is very necessary to regulate exactly the amount of nitrogen. It is also desirable that all the organs of the body, and, therefore, the stomach and liver, should be kept in as healthy a state as is possible. Vegetable nitrogenous compounds and milk and its preparations (buttermilk, skim-milk, koumiss, etc.) enable us to obtain both ends, and we, therefore, in our treatment of epilepsy, should entirely, or almost so, discard the use of flesh foods.

Even meat soups are objectionable. Though apparently very dilute they really are highly concentrated foods, the water with which the meat juice is mixed being absorbed with great rapidity by the stomach. The result is that in a few minutes after swallowing, a thickish meat jelly only is left.

Basing my deductions in the foregoing premises, I have for some time past been in the habit of treating all cases of epilepsy by the vegetarian system, though I hasten to explain that I am no vegetarian myself, nor do I recommend, as is generally done by gentlemen of that persuasion, that particular style of feeding as a sovereign preventative and sure remedy for all the ills of life.

It will scarcely be necessary to give any exact dietary which, of course, varies with the means of my patient and with his surroundings. Epileptics are of all people most anxious to be rid of their complaint, and will better follow out, at least that is *my* experience, more than any other class of patients, the rules laid down for their guidance.

All I can say is, that the greatest possible benefit is often to be derived, especially in those still retaining fair stamina, from keeping the supply of nitrogen down below that laid down as necessary for maintenance of health in the ordinary physiological hand books. This is especially true of those who take little exercise.

With regard to the use of drugs. In a majority of cases I use none, unless, in spite of dietetic treatment and hygienic surroundings, the disease progresses rapidly. I avoid the bromides. The apparent benefit derived from them is more than overbalanced by their disastrous permanent effect on the nervous system.

Iodide of potassium, 10 to 20 grains, at bedtime, is my favorite prescription, even in cases where I do not suspect syphilis.

Belladonna and digitalis I also find in certain cases to be very useful and free from most of the drawbacks which attach to the bromides.

Stomachics—bismuth, with rhubarb and soda—are often, especially at the onset of the disease, of great service.

Of twenty-three cases belonging to class 1, which I treated on what I call a vegetarian and milk system, nineteen were markedly benefited. Seven of the nineteen were apparently cured, and eight were able to resume occupation which they had, by reason of the frequency of the fits, been compelled to abandon. The other four of those who derived benefit had a considerable diminution in the number of fits.

Of 11 cases belonging to classes 2, 3 and 4, about half received decided benefit, but, unless I give my full statistics, which, I fear, would be too great a call on your space, I cannot, in cases where the causation the epilepsy variess so widely as it does in such a group, draw any convincing deductions worthy the attention of your readers.—*Journal of Reconstructions.*

CHOLAGOGUE PILLS.

Excellent cholagogue pills to use in case of habitual costiveness are the following:

Podophyll. resin.....grs. ij to iij.
Extract. Belladonæ.....grs. j to jss.
Extract. nucis vom..... grs. iv to ij.
Ext. colocynth. co.....
Pulv. rhei..... aa grs. xii to ℈j.

Make into pills. Patient is to take one pill at night and one in the morning, every time he remains a day without a full and satisfactory operation.

USE OF BLACK HAW IN HABITUAL ABORATION AND OTHER UTERINE TROUBLES.

In 1878 my attention was called to the haw in a paper published in New Remedies, page 105, April, 1878. I first employed it in the case of a lady who had aborted three times. It was used from the third to the fifth month with her with good effect, and she went to full term, and since has borne two children without any inconvenience.

Besides this case I have employed the haw in sixteen cases of threatening abortion that I have notes of, besides seven others of which I have no record. Six of these patients had aborted from two to four times. In five of them the child was carried to full term. In one abortion occurred, but I do not think the drug was kept up long enough to have the desired effect.

Three of the sixteen had aborted once, and they all went to full term, and did well.

Of the remaining three cases noted of primiparæ two aborted, and I feel sure that too much time

had been lost before they let it be known, and the membranes were broken.

In half of these cases I did not have the fluid extract of the haw, and to make a decoction of the bark of the root, which I think is best. In giving the fluid extract I gave from thirty to sixty drops, from two to four hours apart, till all pains ceased.

In congestive, as well as obstructive dysmenorrhea, I find it very beneficial, increasing the flow in the obstructive form, that is, obstruction from clots and shreds plugging up the canal.

In after-pains it has acted well with me, causing the patient to rest well.

By its quieting effect on the contracted uterus at the menstrual epoch, black haw allows the flow to go on without causing the patient to suffer as much as she would without it; and, if given in sufficient quantities, I believe it will prevent abortion in almost every case where the placenta is not detached or the membranes broken. It has never, in my hands, affected the stomach enough to produce nausa.—*Dr. C. Bevill, Therapeutic Gazette.*

ON SOME FORMS OF ALBUMINURIA NOT DANGEROUS TO LIFE.

The gravity of albuminuria, as a sympton, has been differently estimated at different times, but gradually it has come, in recent years, to be known that albumen often appears in the urine, even in considerable quantity and very persistently in persons free from important organic malady. Indeed, it may be maintained that some patients with persistent albuminuria are yet eligible for life insurance at little, if at all, above ordinary rates.

It is, therefore, important to know the characteristic features of these non-dangerous albuminurias.

Dr. Grainger Stewart, in the January issue of *The American Journal of the Medical Sciences*, studies the following varieties: 1st, paroxysmal albuminuria; 2d, dietetic albuminuria; 3d, albuminuria from muscular exertion; and 4th, simple persistent albuminuria; and illustrates each with reports of cases which are markedly characteristic.

The diagnostic features of paroxysmal albuminuria are the sudden and copious occurrence of albumen in the urine with numerous casts, the process lasting only a short time, and recurring at intervals with or without a perceptible exciting cause. The exciting cause, according to Dr. Stewart, is irritation of the kidneys from blood-changes. The treatment should be directed, on the one hand, to the avoidance or diminution of renal irritation; and, on the other, to the regulation of the hepatic function, and of the chemical processes in the body. Happily, the attacks are usually of brief duration, and he has never known them prove permanently injurious.

Dietetic albuminuria is a variety which has long been more or less distinctly recognized. Some people suffer from it whenever they indulge in certain articles of diet. In some cases one kind of food, in others many require to be proscribed; cheese, pastry, and eggs are among the more common offenders. Of this group our present knowledge does not suffice to afford a satisfactory explanation.

Those cases of *albuminuria following upon muscular exertion* Dr. Stewart is disposed to attribute to a general change in vascular activity. The principal indications for their treatment are met by rest, judicious diet, and attention to the general health. Those remedies which act upon the muscular fibres of the vessel deserve trial.

The features of *simple persistent albuminuria* are the constant presence of albumen, usually in small quantity, unattended by tube-casts, diminution of urea, by increased muscular tension, cardiac hypertrophy, or other consequence of renal malady, persisting for a period of months or years, and little influenced by diet or exercise.

Dr. Stewart concludes his study with a consideration of the prognosis of these groups.

IS THE "KNEE-KICK" A REFLEX ACT?

Dr. Warren P. Lombard, in a paper in the January number of *The American Journal of the Medical Sciences*, endeavors to determine whether the time between the moment of the blow on the ligamentum patellæ, and the beginning of the following contractor of the quadriceps muscle, is long enough to permit the phenomenon to be a reflex act. The result was the discovery that this period was about only one-fourth as long as that required for a skin reflex from the knee, and very little longer than that seen when the quadriceps muscle is incited to action by direct electrical stimulation.

His experiments lead him to the belief that the contraction of the quadriceps muscle following a blow on the ligamentum patellæ comes much too soon to be the result of a reflex stimulation. It is probable that the stimulation is due to a sudden stretching of the muscle fibres, and that the stimulus has the same character as when the muscle receives a direct blow. Before this conclusion can be accepted, however, the undoubted influence of the spinal cord upon the production of the phenomena must be explained. The current explanation that the irritability of the muscle to finer mechanical stimuli is dependent on "muscle tonus" will not be altogether satisfactory until the existence of "muscle tonus" is proved.

It seems probable that, in addition to the first impulse which comes to the quadriceps when the ligamentum patellæ is struck, occasionnally a second impulse, of reflex nature, originating either in the nerve ends of the skin or of the tendon and muscle, may come to it and increase the height of the contraction. Under normal conditions, however, this would seem to play a very subordinate part.

MANAGEMENT OF MELANCHOLIA.

Dr. C. H. Hughes sums up the strictly medical management of melancholia, in the absence of all appreciable gross functional or organic conditions, as follows:

1st. Tranquilization of physical agitation.

2d. Restoration of the lost cerebral tonicity.

3d. The substitution of new, diverting and agreeable physical impressions.

4th. The removal of the moral causes of the melancholia or the removal of the patient from their influences.

5th. The removal of all physical causes so far as they are descernible and practicable.

The first and third indications are temporary symptomatic expedients, but they are essential aids to the fulfilment of the second requirement. To accomplish the first, nightly doses of alcohol, chloral hydrate, urethran or opium to induce sleep, and ether lotions to the head suggest themselves, and occasionally ether or chloroform inhalations. Cephalic galvanizations before bed-time may supplant the necessity for hypnotics, and will always be found an invaluable adjuvant treatment. To fulfil the second indication everything that builds up—generous diet, malt extracts, liquors and wine (sparingly), with pepsin, ingluvin and pancreatine, the compound hypophosphites, muriate of ammonia, iron, arsenic, strychnia, phosphorus, valerian, camphor, and zinc. The patient will refuse and resist food, but it must be urged upon him in concentrated liquid form if he will not take solids, and its digestion and assimilation must be assured by chemical aids; but solids are the best. The ozone formed by the static machine quickens the blood changes, makes a demand for iron, and accelerates the formation of hemoglobin, of which pure air and iron are the pabula. For this purpose, static electricity and mild static electro-massage give valuable aid, especially where the patient is fleshy and cannot be induced to walk out or ride on horseback. Violent and oft-repeated massage, mechanical or manual, and oft-repeated Turkish baths, are positively hurtful to these patients by the excessive weariness they occasion, if not compensated by adequate restorative nutrition. The interrupted current and the static shock fix and divert the attention of the patient, and have in my hands sometimes awakened a new interest in the medical aspects of this cure.

The daily surcharging of the patient with the positive current does good, and the study of the marvelous phenomena of electricity sometimes supplants for a time the self-introspection of the patient, pending our reconstructive measures, and the silent electric saturant has also power to reawaken dormant nutritives and formative force energies in the depressed organism of melancholia. The free use of aromatic flowers and plants, and attractive and novel paintings, statuary and articles of vertu, birds and enlivening music, humorous illustrated literature, plays, panoramas, and pantomimes are valuable auxiliaries. The exhilarant influence of aromatic flowers and plants has been attributed to their capacity to generate ozone.

The third indication is promoted by the judicious and temporary use of the exhilarant stimulants, opium, codia, cannabis indica, caffein, thein, quinine, camphor, the valeriates of ammonia, iron, etc., Hoffman's anodyne, chloroform, the etherials, the alcoholics, and coca extract and cocaine. I deem it advisable to use all of these stimulants sparingly, and the latter, especially, with extreme caution. The extract of wine of coca, especially the old "Vin Mariani," are safe and more preferable than cocaine. No mental impression that will agreeably divert the mind should be ignored in melancholia.—*The Alienist and Neurologist.*

DIAGNOSIS OF INFANTILE DISEASES.

In a recent number of *L'Union Médicale du Canada*, Dr. Bradley gives the following summary of points on the diagnosis of disease in infants:

1. Congestion of the cheeks, excepting in cases of cachexia and chronic disease, indicates an inflammation or a febrile condition.

2. Congestion of the face, ears, and forehead of short duration, strabismus, with febrile reaction, oscillation of the iris, irregularity of the pupil, with falling of the upper lids, indicates a cerebral affection.

3. A marked degree of emaciation, which progresses gradually, indicates some subacute or chronic affection of a grave affection.

4. Bulbar hypertrophy of the fingers and curving of the nails are signs of interference in the normal functions of the circulatory apparatus.

5. Hypertrophy of the spongy portion of the bones indicates rachitis.

6. The presence between the eyelids of a thick and purulent secretion from the Meibomian glands may indicate great prostration of the general powers.

7. Passive congestion of the conjunctival vessels indicates approaching death.

8. Long-continued lividity, as well as lividity produced by emotion and excitement, the respiration continuing normal, are indices of a fault in the formation of the heart or the great vessels.

9. A temporary lividity indicates the existence of a grave acute disease, especially of the respiratory organs.

10. The absence of tears in children four months old or more suggests a form of disease which will usually be fatal.

11. Piercing and acute cries indicate a severe cerebro-spinal trouble.

12. Irregular muscular movements, which are partly under control of the will when the patient is awake, indicate the existence of chorea.

13. Contraction of the eye-brows, together with a turning of the head and eyes to avoid the light, is a sign of cephalalgia.

14. When the child holds his hand upon his head, or strives to rest the head upon the bosom of his mother or nurse, he may be suffering from ear disease.

15. When the fingers are carried to the mouth, and there is, besides, great agitation present, there is probably some abnormal condition of the larynx.

16. When the child turns his head constantly from one side to the other there is a suggestion of some obstruction of the larynx.

17. A hoarse and indistinct voice is suggestive of laryngitis.

18. A feeble and plaintive voice indicates trouble in the abdominal organs.

19. A slow and intermittent respiration, accompanied with sighs, suggests the presence of cerebral disease.

20. If the respiration be intermittent, but accelerated, there is capillary bronchitis.

21. If it be superficial and accelerated, there is some inflammatory trouble of the larynx and trachea.

22. A strong and sonorous cough suggests spasmodic croup.

23. A hoarse and rough cough is an indication of true croup.

24. When the cough is clear and distinct, bronchitis is suggested.

25. When the cough is suppressed and painful, it points toward pneumonia and pleurisy.

26. A convulsive cough indicates whooping-cough.

27. A dry and painless cough is sometimes noticed in the course of typhoid and intermittent fever, in difficult dentition, or where worms are present. —*London Medical Record.*

HYSTERIA IN A NEW LIGHT.

According to *The Lancet*, September 4, 1886, (*Med. Record*) the views of Mr. de Berdt Hovell on the subject of hysteria are to be carefully received as those of a shrewd practitioner of long practice and large experience. He strongly protests against the whole hypothesis of hysteria. He thinks the theory that localizes the disease in the uterus is the mere survival of medical demonology, which located ill-humor in the spleen, blue devils in the liver, and the soul in the pineal gland. He claims for hysterical patients more fairness of treatment and more discrimination. He attributes many of the cases to shocks, physical or moral, leading to deficient or depressed nerve-power, with all that this implies in the way of pain, irritability, inability for locomotion, etc. Mr. Hovell admits that the cases are difficult to cure; but he maintains that if we are to deal with them effectually we must "set aside all considerations of the organs of reproduction, which most probably are not concerned, and transfer our attention to the moral nature." Mr. Hovell gives several cases in which there was a distinct history of shock or exhaustive work, to explain the break down in the nervous system. We live in days when the nervous system is getting its full share of attention from pathologists and physicians, and when even gynecologists are finding out that the uterus, and even its appendages, which are now blamed by some for everything, are not such culprits as has been supposed. Mr. Hovell will admit that the cases of so-called hysteria do occur chiefly, though by no means exclusively, in women. In their organization there is *something* specially favoring the occurrence of this state or disease. It may not be in the special organs of the female as much as in the special organization of the nervous system. Mr. Hovell deserves credit for insisting on this point, and he may well be satisfied to know that the drift of opinion among physicians is toward the acceptance of his views. Women are more finely strung than men. They are more liable to pain or pains of all sorts from mere functional causes. Such a constitution is perplexing to the physician; but it has to be considered, and not treated as a sort of crime, as has too often been the case.

THE NIGHT-SWEATS OF PHTHISIS TREATED BY SECALE CORNUTUM.

Mingot reports in the *Journal de Médecine de Paris (Ther. Gaz.)* as to the unexpectedly favorable results obtained with secale cornutum in the night-sweats of phthisical subjects. He observed in Tenneson's clinics at Paris that 15½ to 31 grains of ergot given in powder form, or, better, 2 fl. dr. of ergotinine injected hypodermically half an hour previous to the expected appearance of the sweat, could suppress the latter for a week or even longer. No other of the numerous remedies recommended against night-sweats was, save atropine, found to have so great an effect as ergot or ergotinine. To be sure, the tubercular process is in no way influenced by the exhibition of this remedy, but it is gratifying to be able to stay one of the most annoying, and at the same time weakening, factors of the disease.

TREATMENT OF CHRONIC CONSTIPATION IN CHILDREN.

Dr. W. B. Cheadle, at the close of a clinical lecture on this subject, points out the disastrous results of mistaken treatment, and shows the necessity of a more rational procedure. "Look, at the evil effect of strong purgations—how they enervate and wear out the tone of the bowel. No occasional purge of rhubarb or scammony is efficient to cure. Look, again, at the evil effect of frequent enemata. Enemata are only to be used on an emergency. They, equally with strong purges, impair tone and do direct harm by actual dilation. In confirmed cases of constipated habit, treatment must not be intermittent, but continuous; the daily administration of appropriate remedies steadily, for a considerable period, is absolutely essential. Intermittent treatment is abortive, ineffectual, and aggravates the evil. What, then, is the proper

treatment for these cases? First, be sure that there is no malformation, no intussusception, no sore about the anus, rendering defecation painful. Then use saline laxatives. Their mode of action is by increasing the flow of secretion rather than by stimulating peristalsis. Thus tone returns when distention is relieved by the easy evacuation of fluid stools. Further aids to this are strychnia, nux vomica, iron and belladonna. They act by increasing muscular tone and nutrition, not by stimulating peristalsis directly. In the case of little children up to two years old simple carbonate of magnesia in milk is sufficient (5 to 10 or 20 gr.); this is better than the piece of soap in the rectum, or the repeated castor oil or manna so constantly advised. In older children the sulphates of magnesia and soda, with the tonics named above, and daily massage with castor oil or cod-liver oil, are most useful. In older children still, a pill of aloes or euonymin, with sulphate or iron and nux vomica, may be given as an alternative to the salts and strychnia, but no frequent rhubarb, or scammony, or podophyllin, or jalap (these are for the relief of temporary difficulty only); in mild cases, perhaps, or if the liver is not acting, a dose of calomel, grey powder, and soda, or senna. Regimen is an important element in the treatment, if the child should have chronic constipation; abundant water, pure, not hard; "salutaris water" is excellent. In little children add a good infants' food to milk, fruits, fruit jellies, treacle, cooked green vegetables of the softer and more delicate kinds. Some variety in food is useful; a good mixture is better than a monotonous diet. It is, I think, extremely doubtful if coarse food is useful in the long run. It causes atony and weariness of muscle eventually by over-stimulation. And you must insist on regular evacuations. Take care that the stools are not dry and hard, or the child will resist action and increase constipation. Other useful adjuncts are—abundance of fresh air, which aids in improving nutrition; and exercise, which aids the passage of the contents of the intestine down the tube, and improves general health and muscular tone."—*Lancet*, Dec. 11, 1886.

PUERPERAL ECLAMPSIA TREATED WITH PILOCARPINE.

Dr. T. Coke Squance thus writes in the *Lancet*:

Early on the morning of September 8 I was called to attend Mrs. L—, aged twenty-two, in her first confinement, her ordinary medical attendant being from home. I was informed that the "pains were slow," that she had been very sick, and complained of severe "pain in the head." On examination, I found the os well dilated, head presenting, and membranes (which were very tough) unruptured. I ruptured the membranes and applied a binder, but after waiting for some time the pains became very feeble, and the patient showed such signs of exhaustion that I proceeded to deliver her with the forceps, subsequently removing the placenta, which was partially adherent. There was no hemorrhage worth speaking of, and half an hour after the patient expressed herself as "feeling well." Her pulse when I left her was 72. Later on, I received a message to the effect that she was "going from one fit to another." On my arrival I found her quite unconscious, face flushed, pupils widely dilated, skin harsh and dry, abdomen tympanitic, bladder empty, feet œdematous, pulse 120 and full, and temperature 100°. Her friends informed me that she had had about a dozen exceedingly severe fits, during some of which they thought she was dead. During the "fits" she had passed fæces and urine. As an attack was evidently just commencing, I gave her a hypodermic injection of pilocarpine (¼ grain). The head was then being turned from side to side, the eyelids and eyeballs were moving rapidly, the mouth was drawn up towards the right ear, and the head turned towards the right shoulder, the countenance being of a livid hue. The fingers and thumbs were then flexed on the hands, the latter being strongly flexed on the arms, which were also somewhat flexed; the trunk and legs became rigid. The left leg was raised from the bed, and remained extended for fifteen seconds. There was a peculiar hissing sound on respiration, with convulsive movements of the larynx, the face becoming blue-black in color, and the patient seemingly on the verge of suffocation. The rigidity, which lasted for fifteen seconds, was followed by clonic convulsions, the face was frightfully distorted, and large quantities of frothy foam, slightly tinged with blood, came from the mouth. Respiration became restored and the convulsion ceased, with the exception of a little twitching, at the end of three minutes, by which time the patient was in a profuse perspiration. The attendant told me that this attack was barely half the duration of the previous ones. There was no further seizure until shortly before I saw her the next morning, when there was a slight attack. I repeated the pilocarpine then and once subsequently, and no further seizures occurred. She remained unconscious for three days, during which time urine was passed in large quantities. There was an abundant secretion of milk. When I terminated my attendance at the end of a week, her own medical attendant having returned home, she was making most favorable progress. In addition to the pilocarpine, I ordered her a mixture containing chloral hydrate and bromide of potassium, and pessaries of eucalyptus, and perchloride of mercury per vaginam.

RULES FOR OPENING THE ABDOMEN.

Dr. T. Gaillard Thomas (*Medical News*, Dec. 11, 1886) gives the following rules for explorative incision of the abdomen:

1st. Every explorative incision should be made under the strictest antiseptic precautions. As to

strict cleanliness, all are agreed ; if antiseptics of chemical character are valueless, they, at least, in all probability, do no harm ; give the patient the benefit of the doubt, and employ them.

2d. Always employ an anæsthetic, lest the complaints of the patient should frustrate the investigation, or at least render it superficial and uncertain.

3d. Always make an incision which will admit the whole hand, one which will admit two fingers only is hardly warrantable. If possible, let but one man's hand be passed into the abdominal cavity ; in a multitude of counsel there is, in these cases, danger. The brain which guides the hand should be competent for deciding the question at issue.

4th. Never hurry an exploratory incision, but never prolong one unnecessarily; let discussion as to diagnosis occur after the peritoneum is closed, not while it is open ; and let the fact be appreciated that the clinical lecture, which is so common at this moment, is always a source of danger.

A DOMESTIC DEVICE FOR NIPPLE SHIELDS.

The old adage that " there is no new thing under the sun," was prettily contradicted by one of my patients who, suffering with fissured nipples—so sensitive and painful that their contact with any fabric or dressing caused intense distress—invented for herself almost perfect nipple shields, by suspending from a ribbon about the neck two deep, wire tea strainers.

They were held in place by a properly fitting waist, and the nipples, thus covered, were entirely free from any irritation.

She had, moreover, such a copious supply of milk that it was otherwise quite impossible to keep the nipples dry. This was remedied by the ready passage of the milk through the wire gauze to a layer of absorbent cotton covering the tea strainer.

Not until she began to employ this method of protecting the nipples did the process of healing go on satisfactorily.

This young mother's clever device has been a source of great comfort in a number of similar cases which have since then come under my care.

I believe that this use of the tea strainer is quite novel, and trust that its value may be tested by some of your readers.—Frank Holyoke, M.D., in *Boston Med. and Surg Journal.*

LOCAL REMEDY FOR NEURALGIA.

A mixture of one part of iodoform, to ten or fifteen of collodion, if spread repeatedly upon a neuralgic surface until it attains a thickness of one to two millimetres, is said to be quite effective in the treatment of certain neuralgias. If the first application does not speedily terminate the neuralgia, those who have used this mode of treatment direct that its application should be continued. It seems especially valuable in the relief of neuralgias of the trigiminus. It also seems of value to be applied along the spine, particularly at painful points in what is called spinal irritation. These observations are by no means new, and yet they seem worthy of further consideration.—*Neurological Review.*

BOUGIE TREATMENT OF CHRONIC GONORRHEA.

Dr. J. Appel, *Monatshefte fuer practische Dermatologie*, 7, 1886, reports on the use of sounds, covered by a medicament in chronic blenorrhea of the urethra. The method was first employed by Unna. It appears to be of importance to pay attention to the chemical changes that may occur in the influence of medicament upon the material of the bougie and *vice-versa*. In cases, failures appear due to this possibility. Appel has found an unalterable preparation to be a mixture of 90 parts of vaseline, ten parts of paraffine, two of balsam of copaiva and one of nitrate of silver, applied upon block-tin sounds.

This modification is said to heal many a case that has resisted all treatment.

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ANNUAL OF THE MEDICAL SCIENCES.

Dr. Chas. E. Sajous, of Philadelphia, with the assistance of one hundred and fifty corresponding editors and sixty-four associate editors, has undertaken to publish a digest of the medical literature of the civilized world each year. It is proposed to procure information from medical men in all countries with which postal communication exists, from journals, and new publications, etc. The information will be classified and referred to associate editors. Due credit will be given each author and journal. The annual will be strictly non-partisan. The work will consist of five royal octavo volumes of about five hundred pages each, fully illustrated with cuts, maps, and chromo-lithographs. The price will be $15 per set, delivered.

COLLEGE OF PHYSICIANS AND SURGEONS OF ONTARIO.

The corner stone of the building, which this body is to occupy in Toronto, was laid on the 26th of January last by the President, Dr. H. H. Wright. It will be a fine building, and a credit to the profession of our sister Province. The Quebec College is to continue its perambulations between Quebec and Montreal as of old, the folly of this system not being evident to those governors of the College who hail from old "Stadacona."

APPROPRIATION FOR THE INTERNATIONAL MEDICAL CONGRESS.

The United States Congress was asked to vote $50,000, but have declined to give this amount. The sum of $10,000 was, however, appropriated just before adjournment.

It is provided that this amount is to be expended under such regulations as the Secretary of the Treasury may prescribe, also that no part of the appropriation shall go toward paying the personal expenses of any delegate and no money shall be expended, except upon vouchers to be approved by the Secretary of the Interior.

PAY OF AMERICAN ARMY AND NAVAL MEDICAL OFFICERS.

The "Medical News" says:—"The pay of the Assistant Surgeon in the Navy, for the first five years after his first appointment, is, per annum, when at sea, $1,700; when on shore duty, $1,400; when on leave or waiting orders, $1,000. After five years' service, his pay becomes, at sea, $1,900; on shore duty, $1,600; and when waiting orders, $1,200. There seems to be no good reason for the difference in pay for sea and shore duty.

The pay of the Assistant Surgeon in the Army, for the first five years after his appointment, is, per annum, $1,600, and, after five years, $2,200. For the first ten years of service, or thereabouts, the pay of the Army medical officer is somewhat greater than that of the Navy medical officer. But promotion is more rapid in the Navy than in the Army, owing to the fact that the Navy has more officers in the higher grades. Thus, of 180 medical officers in the Navy, there are 15 with the rank of Colonel, and 15 with rank of Lieutenant-Colonel; while of 192 medical officers in the Army, there are 5 Colonels and 10 Lieutenant-Colonels. The result of this is that while in the Army it requires about twenty years' service to reach the rank of Major and full Surgeon, in the Navy it requires a little less than fifteen years to attain this grade. Taking it altogether, there is very little difference in the pecuniary emoluments of the two services."

LACTATED FOOD.

The Wells and Richardson Company have sent us a copy of their Dietetic Annual for 1887. It is full of interesting and valuable information regarding Dietetics, and is well worth possessing. It, of course, deals considerably with the particular food for infants and invalids, which they manufacture—in the use of which we have now had considerable experience. It is called "Lactated Food," and is well liked by children. Unlike many foods it contains milk sugar and not cane sugar, which latter often causes indigestion. It is a food which we can heartily recommend to our readers for infant feeding and the nourishment of invalids—*See Adv.*

GLEANINGS.

Prof. Bartholow of Philadelphia says:

Failure of voice from simple mucous laryngitis or fatigue can often be wonderfully relieved by small doses of nitric acid every two or three hours, to be given well diluted.

Prof. Bartholow still continues to advocate the use of carbolic acid in *typhoid fever*. He states that no form of treatment has, in his hands, been so successful. It modifies the disturbances of the intestinal tube, reduces temperature, and promotes quiet. Two drops of a solution consisting of equal parts of carbolic acid and Lugol's solution may be given every three hours.

The *Health Journal* says:

When a patient is choked or strangled, break an egg as quickly as possible and give him the white (do not beat it), and it will almost certainly dislodge the obstacle.

The *New York Medical Record* says:

Dr. G. C. Simmons recommends the use of spectacles with plates of mica for persons, such as cooks, who suffer from conjunctivitis through exposure to the heat.

Professor Bartholow recommends salicylic acid for removal of bile pigment from the blood after the cause of the jaundice has been removed. Its action is prompt and satisfactory.

PERSONAL.

Dr. William Gardner, Professor of Gynecology, McGill University, has been elected a Vice-President of the British Gynecological Society.

Dr. R. Palmer Howard, Dean of the Faculty of Medicine, McGill University, has been named, at its centennial celebration, an associate fellow of the College of Physicians, Philadelphia.

Mr. Lawson Tait, F. R. C. S., of Birmingham has accepted a vice-presidency of the International Medical Congress, to be held in Washington this coming summer.

Dr. Cotton, of Mount Forrest, Ont., is said to be about to remove to Toronto.

Dr. Spendlove (M. D., Bishops' College, 1880), of Beebe Plain, intends to commence practice in Montreal.

Dr. Charles E. Casgrain, of Windsor, a graduate of McGill University (1851), has been appointed to fill one of the vacant senatorships.

Dr. Wm. Crothers (M. D. McGill, 1876) has just been licensed to practice in the State of California. His residence is San Francisco.

OBITUARY.

Dr. A. M. Sloan died at Listowel, Ont., on the 30th of December last, of Typhoid fever. His loss is deeply felt by all who knew him. He was the son of Dr. Sloan, of Blyth, Ont., to whom we tender our deep sympathy.

Dr. Barrett, of Toronto, died the middle of this month, at the age of 71 years. He was a well-known physician and teacher in the Toronto School of Medicine. He was also the founder of the Women's Medical College in Toronto, which he lived to see in a flourishing condition.

DR. JOSEPH MORLEY DRAKE.

It is with feelings of more than usual sadness that I chronicle the death of Dr. Drake, which took place at Abbotsford, Quebec, on the 26th of December last. The friendship between Dr. Drake and myself began in 1850, when I was but a small boy; at that time Dr. Drake was a clerk in the drug store of Mr. S. Jones Lyman, on the corner of Place d'Armes square and Notre Dame street, while I resided on the opposite side of the square. It was my delight to go over and assist him in some trivial work—for about him there was an attraction which drew my heart to him then, and which made the friendship thus begun continue up to the day of his death. Little idea had either of us, then, that we would both enter the medical profession—and both in time become engaged in the work of medical teaching. The history of my departed friend is worth recording, for it is one which can be pointed to as worthy of emulation. He was born in London, England, in 1828, and in it received his general and scientific education. At the age of 17 he came to Canada, a certified analytical chemist. He filled two situations before he entered the employ of Mr. Lyman, with whom he continued for some time, attaining full control of the establishment, then, perhaps, the most aristocratic in the city. Like many other chemists, he became enamored of medicine, and determined to adopt it as his profession. Our friendship always strong now became firmly cemented, for we sat on the same bench, carved our names side by side, were medical students together. Need I say more? Yes, just this, that while my friend avoided the excesses, which sometimes are thought to be essential to the embryo-medico, he gave his whole energy to developing the best which was in those who surrounded him. Not a student in the College during his term but loved him, and many, scattered to the four winds of heaven—his old class-mates—but will recall with loving memory, the clear, healthy English complexion, and light curly hair of their old chum-Joseph Morley Drake, and mourn his comparatively early death. Graduating a year before him, although much his junior, he followed suit, receiving in 1861 his M.D. at McGill, taking the highest position the Faculty could bestow. He was at once appointed House Surgeon to the Montreal General Hospital, which he filled with entire satisfaction for eight years. Soon after leaving this position he was elected one of the attending Physicians and Surgeons to the Hospital, and was appointed to lecture on Clinical Medicine. Physiology was, however, his favorite and on the death of Dr. Fraser, he succeeded him in that branch. Dr. Drake was a good lecturer, but his strength was not equal to the work he had undertaken. Of a nervous disposition, and for many years suffering from mitral disease, he overworked himself, and the only hope of prolonging life was by restricting himself to the practice of his profession. This was tried, but the demands of a constantly increasing *clientèle* soon showed that even this was more than his strength could stand. Then a severe blow came in the death of his wife. His constitution, much shattered by repeated severe attacks of cardiac asthma, was unable to withstand the prostration of his nervous system, which followed. His energy was gone, everything had to be laid aside, and amid the universal regret of all his confrères, he retired from practice. He soon after went to reside at Abbotsford, coming occasionally to Montreal; when he did so, his old friends were always anxious to meet him, and I recall more than one meeting where all were young again. How pained all his intimate friends were when they heard of his death, no words of mine can express. A true man, a noble physician, has gone; the sphere in which he lived and moved is much better because Joseph Morley Drake lived in it.

F. W. C.

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LETTER FROM THE HUB.

Editors CANADA MEDICAL RECORD.

DEAR SIRS:—A hospital is not only an indication of the liberality and benevolence of the inhabitants of a city, but also a good means of judging of the standing of its medical fraternity. If it be well appointed and arranged, and thoroughly up to modern requirements in its internal management and detail, if it be all that a hospital should be in everything that goes to make up a hospital, then will the medical profession be of equally as high a standard. It has been said that it is the medical men that make the hospital, this cannot be gainsayed; but I think the hospital does a great deal in making the medical men. Honors are about even, however. Distinction is conferred in both cases. Judged in this light the citizens of Boston have reason to be proud of the efficiency of its hospitals and the high status of its medical men. I shall refer to the medical profession anon, and wish at present solely to confine myself to the hospitals. Boston has a goodly number of hospitals and dispensaries. It would be scarcely possible within the limits of a letter to do justice to them. I can, therefore, but mention their more prominent features. The Massachusetts General is the oldest hospital in Boston. It dates a great many years back, in the small numbers of the century. A great many of the most eminent physicians and surgeons in Boston have gained their experience there. The main edifice is a large grey stone building, with a portico in front supported by massive ionic pillars. This is the original building of the hospital, and although of a considerable age, it has not become "dim with the mist of years," but its stonework looks as fresh, I should think, as the day when it was first erected. While we must call, in the strict sense of the word, the Massachusetts an old hospital, yet it has had so many additions and improvements that it has become a thoroughly modern one, equipped according to the latest views. New wards have been built and the old ones renovated. The main building (the old part of the hospital) consisted of one long building without any wings; now there are several other buildings, each entirely separate and connected with the others by passageways, whose sides consist of a series of glass windows making them light and cheerful, in which convalescent patients sometimes sit. The hospital contains over 200 beds. It is controlled and supported by private individuals. It is wealthy and excellently managed. The wards are large, well ventilated and kept scrupulously clean. In the main building the larger wards have a large chimney in the centre with grates. The bath-rooms and lavatories are well isolated from the wards, and perfect in their appointments and conveniences. A small kitchen is attached to each ward, to which the meals are brought from the main kitchen and distributed to the patients. The floor and stairs of the two main halls are of stone, and reminds one somewhat of some ancient castle you might see in Great Britain, such as the Tower of London, etc. There is an elevator in the main building. There is one ward consisting of a series of separate rooms. Noisy or troublesome, and

contagious or infectious patients are kept there. On either side of this ward are glass sitting-rooms, which make it extremely cheerful for the patients. The Massachusetts seems to have solved the difficulty of heating hospitals in winter. The wards are heated by steam by indirect radiation, the corridors by direct. There is a large engine room with several huge boilers in it. This supplies steam to all the hospital by a network of pipes running beneath the floor of each ward. Registers are distributed over the wards. Hot or cold air can be had at will. The temperature can be regulated to a nicety. In the London hospitals the open grate is the means used for heating, which is not only the best way of heating but also of ventilating. This is all very well for the mild winter of England; but in a country where Jack Frost reigns supreme it is out of the question. It would well repay those thinking of building or improving a hospital to make a visit to the Massachusetts and get an insight into its facilities for heating. The out-patient department and amphitheatre are in a separate red brick building of two stories. All the various divisions of medicine have a separate room, the women are separate from the men. There are large waiting-rooms for the patients. The operating theatre is capable of holding 400 students. It is well equipped with instruments; Bigelow's apparatus is to be seen here, and is in frequent use. Under one of the cases may be seen an object of considerable historic interest, to wit, the sponge with which ether was first administered. On one side is the Etherizing room, and leading off this are several rooms in which patients are put until they come out of ether. Saturday is the regular operating day, at 11 o'clock. The first row of the amphitheatre is reserved for physicians. The most noted operators here are Homans, Porter, Warren, Beach, Cabot, Richardson, etc.

The main kitchen and laundry are in a separate building. During the past year 2,327 patients were treated in the wards, and 17,016 in the out-patient department. The skin, the throat, eye, ear, gynæcology, etc., are all well represented. Dr. J. C. White has his famous skin clinique at the Massachusetts. There is a considerable ground around the hospital, a neat lodge marks the entrance. A training school for nurses is connected with the hospital, nurses are also specially instructed in the care of the insane, the McClean Insane Asylum being connected with the hospital.

The City Hospital is considered by many the finest in Boston. It certainly is the largest. It is built on the pavillion system, and is situated on Harison avenue, New Worcester square. It has a very imposing appearance as you approach it. In the centre is a square building with a fine dome. The view from this is superb. It has a large portico with corinthian pillars. There are also corinthian pillars at the back. Massive stone steps lead up to the main entrance. This building is devoted almost entirely to official business. The main hall is spacious with marble floor, on the left hand side is the reception room, on the right the superintendent's and the assistant superintendent's office and parlors. Behind these are the dining-rooms and matron's room, on the second floor are sleeping apartments for officials. The operator's room was originally in the Dome; it is still there, but no operations are performed in it. In front of the main entrance is a large piece of ground which in summer is highly cultivated. Leading off this building are two open passageways; that on the right goes to the medical side, that on the left to the surgical. The left leads into a hall from which you enter the amphitheatre; this is well built and holds a large number of students. On the wall hangs a picture of the late Dr. Thorndyke, formerly one of the leading surgeons here. On the ground floor are chairs for the staff to witness the operations. As in the Massachusetts the first row of the amphitheatre is reserved for physicians. The operating tables and mode of carrying the patients to and from the room are perfect. Patients are etherized in a room leading into the operating-room and then brought into the theatre. The surgical instruments are kept in the theatre under glass cases, every instrument desired is at hand. There is a splendid arrangement for irrigating; at the side of the theatre is a shelf on which are placed bottles containing the different solutions used, as carbolic acid, etc. These bottles are connected by rubber tubing to one main tube; this is carried out by means of a brass rod, which is made to swing in various directions and brought right over the operating table, from this hangs the rubber tubing with nozzle, and gives a considerable fall of fluid. By turning the tap connected with each bottle you can have any solution you wish. The conveniences, such as dressings, apparatus, appliances, etc., are everything that one could wish for. Two nurses are in attendance at each operation. After the operation the patient is taken into a

separate room and remains until he recovers from the ether ; there are 3 or 4 rooms specially devoted to this, then they are taken back to the wards. Off the operating room is a splint room, containing every variety of splint ; there is also in this a carpenter's table and tools to make splints with, etc., as required. It is not unusual to see two operations going on at the same time. Friday at 11 o'clock is the usual operating day, a large variety of operations may be seen here. The surgeons of note are Cheever, Gay, Bradford, Bolles, Burrell, etc., you are almost always sure to see one of Boston's noted surgeons here watching the operations. A list of operations is now posted up at the lodge where you enter, so that you may see the programme for the day. One is also kept in the operating room and checked off as the operations are completed. Listerism is adopted here without the spray. Esmark's band is used for controlling hemorrhage. Patients are bound down to the operating table by a strong leather strap which buckles, it surrounds the limbs and table ; this does away with the necessity of having assistants to hold the limbs. In the same building as the amphitheatre is a receiving room for surgical cases, the surgeon's private or consulting room, the house surgeon's waiting-room or library. Another passage-way leads from the building into the surgical pavillion. This consists of three large wards, each containing 28 beds. The wards are beautifully fresh and clean, light, airy, and cheerful, the beds are all of iron ; the heating is by indirect radiation. Off each ward are bath rooms and lavatories,hopper closets,places for the dejecta, etc., and guarded with strictest sanitary precaution. There is also a small kitchen, and nurse's room ; in the hall are cupboards for keeping the medicine, and a small stock of the most important drugs are at hand ready for immediate use. The surgeons make their visits in the morning at about half past nine or ten ; in fact the morning is the time physicians and surgeons do their work at all the hospitals in Boston. Going back to the operating room we leave this building again from the back part by an open passage-way, and come to a surgical ward, the largest and finest in the hospital ; this is extremely well ventilated, off this is a plaster room for making bandages, etc., this completes the surgical wards. Starting from the main building again and going to the right we come to the medical side. The space corresponding to the amphitheatre is occupied by a medical ward. In this building are receiving rooms for medical cases, the physician's consulting room, and house physician's waiting room. Leaving this we come to the medical pavillion, which corresponds in size, number of wards,cleanliness,etc.,to the surgical wards. Open landings or bridge-like ways connect these buildings. Leaving the medical pavillion from the top ward,we go to the top story of the first medical building. In this is a large gynæcological ward. Next this is an operating room for gynæcological operations,with 3 or 4 tables in it,and a good assortment of instruments. In this building are a number of private wards for paying patients. Going from the medical building by a landing we come to a large medical ward of 28 beds ; this corresponds to the surgical ward in the opposite side ; from this we go by an enclosed corridor into a building devoted to isolating wards. There are a series of separate rooms. Two wards are in this building, male and female ; from this we go to view the boiler room ; immense engines and boilers supply the whole hospital with steam ; near this is the morgue where sudden deaths and unrecognized persons are brought. There are several tables with marble slabs on which the bodies are laid. Above is the autopsy room, which is large and well appointed ; there is a small museum in this where pathological specimens are kept ; autopsies are not as readily obtained as with you. Near this is the laundry, worked almost entirely by steam. After going through a corridor we come to the main kitchen. The cooking is done entirely by men. I was fortunate in seeing it when they were serving out meals. It is managed by the steward, who keeps all the provisions for the hospital, and has charge of the diet table, etc. The ice house and various larders are remarkably neat and well stocked ; off the main kitchen is a smaller kitchen, which is used to fill special orders and prepare delicacies for the patients ; near this is a large green-house, where plants are kept to supply the surrounding gardens of the hospital. In the summer months there are a number of canvas tents or wards spread over a considerable space of ground, these work splendidly, and are very happy in their results. Two isolated wards for infectious diseases are in course of erection. The total number of beds at present is 425, but when the new wards above mentioned are completed, 60 more beds will be added. In the wards 3,550 patients have been treated, and 8,271 in out-patient department dur-

ing the year, average cost of each patient $7.64, per week. The out-patient department is small and not in keeping with the other sections of the hospital. They are about to build a new out-patient department. All the branches of medicine are represented. Dr. Williams, Boston's celebrated opthalmologist,is still attached to the eye clinique here. In the Massachusetts and City hospitals all the various details of admitting and dismissing patients, registration of diseases, etc., are excellently conducted. Each has an ambulance corps attached to it, conducted by a medical officer; each have also large convalescent homes in the country. Connected with the city hospital is a magnificent home for nurses, the finest on this continent. The building is next the hospital and is of fine architecture and admirably fitted out. There is a splendid training school for nurses in connection with the hospital. The nurses resemble those you see in the London hospitals, and are equally as good. The Massachusetts and City Hospitals will compare favorably with any other the world over. There are hospitals larger in size and grander in architecture, such as St. Thomas' in London, the Hotel Dieu in Paris, the Edinburgh Infirmary, etc., but there are none better kept and managed or more thoroughly equipped; and there is a sweetness and absence of odor about them which you do not generally find in hospitals. The staff of each is drawn from the most eminent and rising men in Boston.

The Carney Hospital is situated in South Boston. Its location is the most delightful of any hospital in the city, being on a high hill, and commanding a lovely view of the harbor and surrounding country. It numbers about 150 beds; it is not completed,as yet only a single wing being finished; other buildings are to be put up shortly; the wards are large, well kept, and remarkably well-lighted; they are divided into medical and surgical, it has a good out-patient department; the hospital has a large number of private wards. Boston physicians frequently send their cases there; the air is very pure, consumptives are admitted to the hospital. The Carney may be said to be the cradle of ovariotomy in Boston. There are two special rooms devoted to ovarian operations. Dr. Homans, the eminent Boston ovariotomist, gained his experience here, he does not believe in Listerism. The culinary department and laundry are neat and well attended to. The dispensing is done by the sisters, they also have charge of the hospital; they are extremely pleasant in showing visitors around. The medical staff consists of rising young Boston physicians.

The Children's hospital has but lately been erected, and is still in an unfinished state, another wing and out-patient building must be added ere it is completed. It contains at present about 60 or 70 beds, it is on Huntington avenue, near West Chester Park; two large wards are completed, when all is complete in will contain 100 beds. These wards are very fine and thoroughly equipped, each contains iron cots whose sides swing out; children are admitted from two years old to twelve. During the last year the number treated at the out-patient department was 908. At present the out-patient department is in the basement. The hospital has a nice little operating room, with etherizing and recovery rooms, and well filled dispensary. Although all the large hospitals in Bosson have fine dispensaries attached to them, it is not required that Harvard students should go through a course of dispensing before graduating. This is compulsory in all English schools. It seems to me that a knowledge of the various medicines, their doses and how to put them up is a very necessary thing for a practitioner. The Children's Hospital has also connected with it a workshop, where splint and apparatus are made. The fixtures and appointments are of the best, there is a neatness and newness about the whole building. A convalescent home is connected with the hospital at Wellesly. The sisters of St. Margaret have charge of the hospital, it is well supplied with efficient nurses.

The Massachusetts eye and ear infirmary is the finest institution of its kind on this continent, and ranks, I am told, next to Moorfields; it is in a very desirable location, looks on the Charles river, and fronts on Charles St. It contains about 70 beds, and has several large rooms for treating out-patients, each room has one or two dark rooms for opthalmoscopic examinations. One room is devoted entirely to vision testing; there is a large general waiting room for eye patients. The walls of the rooms are of painted brick. A room is specially devoted to ear cases, with waiting-room outside. In the basement is the Dispensary, upstairs are numerous wards; there is a large and well lighted operating room which commands a lovely view of the Charles river and surrounding country. Several darkened rooms are near this to receive patients after cateract operations, etc.; a large number of

operations are done in this institution. During the past year cocaine has entirely superseded the use of ether. The number of patients treated last year was 12,399, of this 8,558 were eye cases, and 3,261 ear; splendid opportunites for studying the eye and ear may be had here, although little clinical instruction is given. The staff consists of the most noted oculists of Boston. Dr. Hasket Derby, vice-president of the American Opthalmological Society, is the senior opthalmic surgeon. Dr. Chandler, a graduate of Bishops College, Montreal, is one of the Assistant Surgeons. The infirmary is excellently conducted and managed.

The Boston Dispensary may be found at the corner of Bennet and Ash St., a new building has been erected at a cost of $50,000. During the past year 36,956 patients were treated. Two stories of the building are in use, there are 14 rooms devoted to all the different branches of Medicine and Surgery, the eye, ear, throat, disease of the skin, genito urinary surgery, Gynecology, orthopœdic surgery, diseases of the rectum, etc., each room has a desk for the physician, a gyneocological table, an open fire-grate, electric bell, and chemicals for testing urine and cupboard for coats. The chairs in the room are of the old puritan style, upstairs there is a large lecture room for giving cliniques in. In both stories there is a large hall or waiting-room, with benches placed opposite each room, where the patients wait their turn. The women are separated from the men is most cases, The Dispensing room is large and well conducted. Patients pay 10cts for each bottle of medicine, and are given numbered cards for each room. There is splendid material in each department for clinical instruction. Attached to the Dispensary are a number of district physicians distributed over the various wards of the city. They attend the poor at their houses, and send prescriptions to the Dispensary to be made up. The poor of Boston are well supplied with diet, kitchen, etc. By getting an order from a physician a great many of these poor are given blankets, etc.

There is a capital arrangement in the gynecological room classes are held here the greater portion of the year. It is very embarrassing to a patient to confront a large number of students. This is avoided by having an iron bar, running across the middle of the room, to which is attached two curtains which draw together. The students sit behind the curtain and the patients enter in front, where they are placed on the gynecological table by the nurse in attendance. The table is then pushed between the curtains; these are drawn around her above the hips. She is then examined by the physician and student without seeing either of them.

During the summer months a Polyclinic is established at the Dispensary, courses are given in every branch of medicine and surgery, and may be had by graduates or students at from $20 to $25 each course. They extend about six weeks.

The St. Elizabeth is a hospital devoted entirely to woman and her ailments. It is situated on a large square on West Brookline st. It numbers about 80 beds, it has also an out door department, and is splendidly kept.

The Women's Free Hospital admits only women suffering from their peculiar complaints. It has a good out-patient department, contains 20 beds. The Harvard students are instructed in Gyneocology by Assistant Professor Baker here; there is also a dispensary for women devoted entirely to Gynecology, and under the care of Drs. Chadwick and Farlow.

House of the good Samaritan.—Through the kindness of Dr. Bradford, the leading Orthopodic surgeon in Boston, I was permitted to see the hospital. It is a small building devoted to two classes of patients, women whose chronic ailments do not permit them to enter the Massachusetts and City Hospitals and youug children who suffer from hip or spine disease, club foot, etc.

The Marine hospital at Chelsea receives from the shipping of the port a large number of patients from foreign countries and distant parts of the United States. Good facilities are offered for studying venereal diseases.

The Boston Lying-in Hospital is on McLean St., here every opportunity is given for becoming well up in obstetrics. On Blossom St. is the West End Nursery and Infant's Hospital, here babies and infants are treated. Dr. Haven who has devoted more time to the study of infantile diarrhea and feeding than any other physician in Boston, is in charge here. Besides this, there is a large Infant's Home.

The Boston Lunatic Hospital is in South Boston, it is capable of admitting 200 patients.

The above mentioned are the principal hospitals and dispensaries of Boston, but there are numerous other charitable institutions. The medical men and officers attached to these institutions, are ex-

tremely courteous and kind to visitors, explaining things and showing one around. Although Boston has three cliniques in skin diseases, and the throat, I may be wrong, but there seems to me, to be room for a special hospital in these branches either separately or combined. The clinical advantages for students studying at Harvard University are excellent, they have the privilege of attending all the hospitals. There is a vast amount of clinical material, from which, if one is industrious and applies oneself, much can be learned. Clinical lectures are given in all the numerous hospitals by the different Professors, assistant professors, and instructors during the session. Classes are formed and practical instruction is given in all the special branches of medicine, such as Dermatology, Otology, Opthalmology Laryngology, Orthopodic surgery, etc. Special instruction is given in mental diseases at the Insane Asylum. There are twenty-five appointments made in the various hospitals, annually, for internes or house surgeons and physicians and the same number for assistants in the out patient department, these are held for the term of eighteen months at the Massachusetts and City hospitals, at the Lying in, four months, and Woman's Free Hospital, nine months. The appointments are all made by competative examination. Although the Harvard students have every facility for witnessing operations, clinical lectures, practical demonstration, etc., I do not think that they have the freedom of the wards, that the students in England and Canada have. They do not become so thoroughly impregnated with the hospital atmosphere and the patient in all his clinical bearings. Classes of twenty follow the surgeon or physician around the wards, but there is no "clerking" or "dressing" done by the students in the wards, they gain this knowledge when they become internes, but all cannot become internes. There is a little dressing done at the out-door departments; this seems to me to be the weak point in the clinical teaching of Harvard. For skilful interrogating and reporting cases, and dexterity in dressing gives one an experience which is of immense value in practice and tends greatly to one's success. Although this is a loss to the student, it is a gain to the patient at least while in the hospital, they have more quiet and are not bothered by the presence of students, and have the house surgeon and physician to attend to them.

J. L. F.

Boston, March 18th, 1887.

A CLINICAL LECTURE.

Delivered at the Montreal General Hospital, December 14th, 1886.

BY

F. WAYLAND CAMPBELL, M.D., L.R.C.P., London,
Dean and Professor of Practice of Medicine, Medical Faculty University of Bishops College.

PROGRESSIVE MUSCULAR ATROPHY.

The patient now before you, Olivier Sarasin, aged 41 years, came to the out-door clinic last Thursday, complaining of cough and pain in his chest. It is not, however, for this condition that I to-day present him to you, but because he presents a well marked case of Progressive Muscular Atrophy, or Wasting or Creeping Palsy as it is commonly called. His family history is good. His father, mother, and four brothers (out of five) are alive, and the fifth was accidentally killed. He has not any sisters. For 17 years he has not enjoyed good health, suffering much from lumbar pain. Three years ago he first noticed that his muscles were getting softer and then smaller; this was accompanied by gradually increasing weakness. Since that time the muscles of the arms and of the chest have continued to grow smaller, or, to use a technical term, have become gradually atrophied. The origin of the disease is very obscure, some authorities claiming that the mischief is in the spinal cord, while others contend that it is in the muscles themselves. The disease generally commences in the upper extremities, and at first is limited to a certain number of muscles, generally the muscles of either the shoulder, arm or forearm are the first to become affected, and the muscles of the opposite extremity rapidly follow suit. Then it gradually spreads over the entire muscular system, even the intercostal muscles and the diaphragm may be involved, causing death by Apnœa, or the muscles of deglution becoming involved death by inanition ensues. Only the voluntary muscles are affected. It is cases such as I have described, and where the whole muscular system is involved, that are exhibited at circus shows and museums as "living skeletons" which, in truth, they are. The first symptom to direct the patient's attention to the fact that something is amiss is weakness of the muscles, accompanied sometimes by pain on movement. This pain is not severe, and is of a neuralgic character, the muscles feel cold, and their temperature is below normal. The muscular fibres of the affected muscles have often quivering movements; sometimes the patient may not be conscious of it. Sensation is not affected, as I will prove to you by this patient. The appetite and digestion are generally

unaffected. Full power is retained over the bladder and rectum, though when the atrophy extends to the muscular coat of the intestines, constipation is the rule. The affected muscles lose their power of contracting under the electric current in the proportion of their atrophy. As is implied in its name, the progress of the disease is slow; sometimes after reaching a certain point it remains stationary; in a few cases recovery occurs, or at least the further progress of the disease is arrested before it has reached a condition sufficient to disfigure the patient's body, or interfere with the proper working of the affected muscles. It may last an indefinite number of years before tending to a fatal issue. The prognosis is most unfavorable, the most that can be expected is that the progress of the disease will be arrested, or that its progress will be slow. It has been known to last over 23 years. It is met with principally in males, and no condition of life is exempt. The treatment must be directed to the arrest of the disease. Undue exertion of affected muscles must be avoided; their circulation and nutrition must be cultivated by friction, massage, and stimulating liniments. Electricity is the chief remedy, and all forms of electricity should be used in turn, for all do good. Surround the patient with the best of hygienic influences.

THE HYGIENE OF THE HAIR.*

By J. Leslie Foley, M.D., L. R. C. P. (London), Boston.

Formerly Professor of Anatomy, Bishop's College, Montreal; and attending physician to the Montreal Dispensary.

The hair absorbs considerable of the thoughts of mankind. I do not mean to infer that thought-absorption is one of its physiological functions; but to those who are so fortunate as to be blessed with a luxuriant growth of hair it is a source of pleasure, pride and vanity, as its loss or deficiency occasions much anxiety and chagrin. To the youth the first appearance of a hair follicle on the upper lip is not only an indication of dawning manhood, but also the signal for the purchase of a complete barber's outfit (barring the scissors) —razor, shaving-mug, brush, etc.—and their assiduous use. And, as years advance, an exuberant beard or moustache is the result of this cultivation. To those middle-aged or growing old, the first sign of baldness warns us that we are no longer young, and can disguise the fact no more, although various and ingenious are the devices made, in combing and arranging the hair, to hide, as it were, "the nakedness of the land." A good head of hair is somewhat of a rarity at the present day. All desire to retain their hair, grieve to see it falling out, and fondly cherish the few remaining locks. We have but to enter a a barber-shop to verify the truth of this remark, and watch our fellow-creatures getting a hair-cut. Observe, for the most part, how careful we are in giving directions to the barber what manner of cut we want, how punctilious about the part and the way it is brushed, how we scrutinize through the mirror before us his every manipulation in the tonsorial art, and how self-satisfied we feel when the finishing touches are completed—oiling, combing, brushing. How proudly we stand up and look at ourselves in the glass when all is o'er! While all desire to keep their hair, few do the right thing to retain it. One naturally runs to the barber, but generally the barber is the hair's worst enemy. The majority of people consider when they keep the hair a respectable length, neatly brushed, combed and oiled, and have an occasional shampoo, that they are doing all that is necessary. As far as appearance is concerned this may be so, but it will not add much to its health and preservation.

The hair should be looked to from infancy up. To disregard this fact is to render one liable in after-years to a diseased condition of it, or a deficiency. The infant's head is often neglected, and not properly cleaned. As a consequence, a thick scurfy crust often forms upon the scalp. This irritates the skin, and gives rise to an eczema of the head. This should not be allowed to occur. The baby's head should be washed in lukewarm water, with Castile soap, twice or three times a week. This should be practiced from birth up, and the hair daily brushed. In very young infants the softest brush should be used. As the child increases in years, two should be used—a rather harsh one first to loosen the dirt, dried sebaceous material, and epithelial scales from the scalp, and brush it out; then a fine, soft brush to smooth the hairs out. A fine comb should not be used on a child's head, and a coarse one only to part or lay the hair. Too great care can not be lavished on the hair of children.

Copied from the *N. Y. Medical Journal*.

With the adult's hair, as with child's, cleanliness is one of the first requisites. The scalp should be thoroughly washed at least once a month. One of th best cle nsing substances is the yolk of an egg, or the white of an egg answers just as well, and is more readily removed. This should be well rubbed into the roots of the hair, then washed out with tepid water and Castile soap, rinsing with clear cold water. The scalp should then be thoroughly dried by brisk rubbing with a towel. This brings a roseate glow. If too dry, a little pomade may be used. Cocoa-nut oil is the best. Purified beef-marrow might be used, but vegetable oils are the best to use, as they do not so quickly become rancid. Bear's oil and hedgehog oil are not what they are reputed to be. A proper amount of pomade is not only harmless, but useful to some scalps, especially to those with little oleaginous material to keep the hair supple and glossy. When used in excess, it becomes harmful, as it then tends to cover in dirt. A head besmeared with an excessive amount of oil is not only deleterious to the hair, but often does most serious damage to my lady's tidy, and often leaves one's mark on the wall—if not on the world. Purchase pomade or oils in small quantities, as they are liable to become rancid quickly, and this is very pernicious. Use them with scent, as this hides their rancidity. If you desire scent, a drop of Eau de Cologne may be added to the oil before using it. Oil is best applied immediately after washing the hair; it penetrates quicker then.

When there is a tendency to the accumulation of scurf, a mixture daily of equal proportions of 80 per cent. alcohol and aromatic spirits of ammonia with a quantity of soft water is an excellent wash. This makes an excellent shampoo. The fixed alkalies, such as borax, salts of tartar, soda, etc., should not be used; they tend to diminish the natural elasticity and flexibility of the hair.

A wineglassful of aromatic spirits of ammonia added to a basinful of water is very cleansing and refreshing. Care should be taken that it does not get into the eyes. The shampoo as given by the barber is too rough and vigorous, and the conglomeration he puts on your head afterward is anything but beneficial. While one performs daily ablutions of the face, hands and body, the head is generally left out. This should not be; it is as necessary to wash the scalp as any other part of the body. The hair should be brushed daily. Too much violence must be guarded against. It should be brushed gently in the direction in which it lies. A harsh brush should be used to cleanse the scalp of dust and dandruff, and the hair-shafts should be smoothed and polished by means of a softer brush. The scalp should receive a roseate glow. This insures quicker circulation in the follicle about the hair-papilla, and hence the growth is invigorated. Hair-tonics have the same effect upon the skin—viz., a stimulating effect upon the skin capillaries. Morning and night, before retiring, is the best time for brushing the hair. Too hard brushing tends to produce dandruff. In brushing, the object is to cleanse it from extraneous materials, such as feathers, dust, dandruff, and concrete sebaceous material, which often oozes out upon the scalp, to make it smooth, and to bring truant hairs into the right place, and set at harmony discordant filaments.

Friction polishes the hair as well as bandoline or ointment. The end we seek in building up a scanty hair crop is a proper amount of blood-supply, through friction and hair-tonics. The appended is an excellent hair-tonic:

℞ Acid Carbolic..... ℥ ss.;
Tr. nucis vom..... ..... ℥ ij;
Tr. cinchonæ rubr..... ℥ j;
Tr. cantharidis..... ℥ ss.;
Aq. cologniensis, } .....aa q. s. ad ℨ iv. M.
Ol. cocois, }

Apply once or twice a day to the scalp by means of a soft sponge. This will prevent the hair from falling out if it does not produce a luxuriant crop.

Fine-toothed combs should be avoided, and used only from a sportsman's point of view—"to catch game." They have a tendency to peel off the scarf-skin and leave a denuded surface below, which is apt to end in disease, pityriasis, etc. Dr. Leonard gives the following trite remarks in selecting a brush or comb:

"A hair brush or comb with silvery bristles or teeth too sharp is not good; the scalp will be scratched by the one and the hair broken by the other. A proper brush is made up of bristles, varying with the individual as regards the stiffness of them. The clusters should be evenly set into the back, equidistant from each other, so that the whole surface of the scalp to which it is applied will be touched by some one of the bristle-bunches. Then the clusters should be made up of bristles of slightly unequal length, so as to still further

favor the brush in covering every part of the scalp; by this means every hair will be rubbed down on all sides, and there will be no streaks or spots of the scalp left untouched.

"A proper comb is one whose teeth are even and regular, with points not sharp but rounded. It should be held up to the light so as to detect any splitting or roughening of the teeth on the sides; for, if they are so roughened, injury to the hair through breakage of the shaft will result. Should the teeth through any cause become split, as you value your hair, the offending members should be carefully cut from the comb; the slight space on the scalp that would thus remain untouched would be of no moment. Wire brushes are nothing more than combs. They act as a stimulant to the scalp, but are not equal to a good bristle-brush."

A good supply of oxygen is necessary for the healthy growth of hair; the head should be well aired. The hat has made sad havoc with many a caput. Endeavor to go bareheaded as often as possible. When walking, lift the hat off the head frequently, and, if the sun is not too strong, hold the hat in your hand a while. The blue-coat school-boys, formerly of Christ Church, London, who wear the costume of Edward VI, go bareheaded the year round. They wear no hats in the coldest days of winter. They are remarkably healthy, and have a redundant crop of hair which lasts them a life-time. If we must wear a hat, let it be light in texture and well ventilated from the top. One reason that women keep their hair longer than men is that their head-gear allows of better ventilation. Business men sometimes wear their hats in their office, or have a special hat which they put on. This is very injurious. The brokers of Wall Street are noted for wearing their hats indoors as well as out-doors. They are also notorious for having bald heads. This may account for it. When the head is well shorn of its locks this does not apply.

The hair should be cut regularly about once a month. Frequent cutting is said to make it grow quicker. Dr. Pincus, of Berlin, holds that it diminishes its growth. The ends of the hair split, and require to be cut off. Sharp scissors should be used. Some filaments grow faster than others and need to be cut back; others are impoverished, and better brushed out or extracted. The beard should not not be shaved during its development. During youth the natural growth should not be disturbed. Shaving causes the single hairs to become prematurely strong and hard. It also alters somewhat the color of the beard, giving it a tendency to turn red or brown. In middle age this does not hold. Oil and brush may be used on the beard according to inclination. I have often thought it would be well if the barber would put his razor in a weak solution of carbolic acid after shaving each customer, and thus prevent the danger of infecting them with some dread disease, barber's itch, etc. We have Scriptural authority for wearing the hair short. St. Paul says, "It is a shame for a man to wear long hair." Poets, artists, and many prominent men do not seem to heed this sacred injunction. There is an old canon extant, dating as far back as 1096 A. D., which declares that they who wear long hair shall be excluded from the church while living, and not prayed for when dead.

With regard to the ladies, their hair should be brushed rather than combed daily, its tangles carefully unraveled, its split ends cut off, and, when done up, it should be bound in as easy rolls and coils as possible. One reason for this is to allow as free ventilation as possible for the scalp; the other that you may not break the hair or strain the roots by tight tension upon them. Twisting or tight binding should be avoided. A persistent mechanical pressure on the shaft, by obstructing the flow of oleaginous fluid designed to soften it, tends to dry those portions which are beyond the ligature. Ladies should loosen their hair well every night before retiring. Crimping, the use of curling-irons, and bleaching the hair must be avoided. For invalids or those confined to bed, the hair should be oiled daily, and then combed with a coarse comb. The skin should be washed twice a week with a sponge and a little soapy water. The water may be either cold, lukewarm, or warm.

Loss of hair is generally caused by a permanent irritation. In adults, heavy head-covering or coiffures may cause this irritation. Those having weak hair should avoid pads; they injure the hair, and bring on headaches.

A daily shower-bath on the head is injurious. Lotions should not be used; most of them contain lead. They have been known to cause paralysis. Dyes are very deleterious. The least harmful are those containing iron or nitrate of silver.

Tiring brain-work, strong mental agitation, silent

grief, continued disturbance of sleep, exercise a reaction on the growth of the hair. In cases where there is a delicate health and a deficiency of sebaceous substance, tincture of bearberry renders the hair soft, glossy, and flexible.

22 Darmouth Street, Boston, February 22, 1887.

Society Proceedings.

MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

Stated Meeting, Jan. 14th, 1887.

J. C. CAMERON, M. D., PRESIDENT, IN THE CHAIR.

Bromide Rash.—Dr. BLACKADER exhibited bromide or iodide acne.

Dr. STEWART asked if bromide of potassium had been administered alone, and suggested the practice of combining Fowler's solution to prevent a typical case of bromide acne.

Dr. BLACKADER replied that he usually administered a combination of the bromides of potassium with sodium or potassium and ammonium, but had forgotten the exact prescription. The dose was about 40 grains daily,

Wound of the Internal Jugular.—Dr. BELL exhibited a patient who had recently met with an accident resulting in severance of the internal jugular vein. The patient was convalescent.

Dr. SHEPHERD thought that the laryngeal trouble might be due to division of the superior laryngeal nerve, with, perhaps, some fibres of the inferior laryngeal, and suggested that instead of permanent ligature of the carotid artery a temporary ligature might have been passed about the artery, and its effect on the hemorrhage noted.

Dupuytren's Contraction.—Dr. R. J. B. HOWARD read a short paper on a case of Dupuytren's contraction, which he illustrated by a carefully made dissection.

Dr. SHEPHERD said he had always connected this affection with a gouty diathesis. It was very rare in this country, but rather common in England. It occurs frequently in old men, especially in the right hand, probably from the use of a stick. Authorities agree that it is rare in women, but during four years in the General Hospital he had seen only one case, and that was in a woman.

Puerperal Eclampsia.—Dr. LAPTHORN SMITH than read the following paper on this subject :—

As the elements of doubt as to the ætiology of this disease are being gradually eliminated, and as the mechanical nature of its origin, which was not long ago scarcely entertained, is being more generally adopted, I propose to make the following case the text for a brief discussion on the *nature* of the phenomenon with a view to laying down, somewhat dogmatically, a certain principle of treatment. This I think I am able to show, even within the limits of a very short paper, we are fully warranted in doing, and if such a thing can be done, it will materially help many of us younger men, who have often to be guided by the experience of others who have not always very distinctly told us what their experience was :

Mrs. M., aged 28, married at 24, had her first-child a year afterwards. Two years after marriage she became a widow, and remained in that condition until nine months before I saw her, when she was married again. She became pregnant the next month, and when she had reached the seventh month, or a little latter, I was engaged to attend her in her confinement. As I was informed that her feet were beginning to swell, I asked for a sample of her urine, which on examination appeared clear when warmed, but very muddy on cooling, and was found to contain no sugar, but was loaded with albumen. On examining her next day I saw that her legs were full of dropsical effusion ; the labia were so swollen with liquid that she was unable to sit down ; her bowels were confined and urine very scanty ; she had occasional slight headaches ; no disorder of vision nor of intellectual faculties. She had no trouble what ever with her previous confinement, and felt quite well during the first six months of this pregnancy, but her abdomen was so large that I suspected twins, especially as another case of eclampsia which I attended also occurred in a twin pregnancy. I gave her cathartics and a mixture of squills and digitalis, and placed her on a strict milk diet. As this failed to ameliorate her condition, after a week's trial, I changed it to digitalis and iron, with no better result. As she was rapidly getting worse, and toxic symptoms began to manifest themselves, I began to consider whether it would not be better to induce labor and empty the uterus. For I believe, as I shall show later, that the albuminuria and uræmia are due to the passive congestion or inflammation of the kidneys, caused by mechanical pressure on the renal veins by the enlarged uterus. Before taking

what I then thought was a very important step, I availed myself of the experience of my friend and colleague, Dr. Kennedy, who agreed with me as to the necessity of taking action, but who thought it better, on account of the enormous distension of the genitals and the occlusion of the passage, to make one final effort to reduce the amount of exudation in the skin. We accordingly gave her forty grains of compound jalap powder night and morning, which produced about a quart of watery evacuations daily, and a quarter of a grain of pilocarpine every four hours, which, however, produced no effect whatever on the skin. As I feared that convulsions would come on before long, the amount of urine passed not exceeding a gill daily, I left a bottle of A. C. E. mixture with the nurse, with instructions to use it if they came on. She gradually grew worse until about two weeks from the time I first saw her, when the accumulation of the toxic agent caused an explosion of convulsive movements of the most violent description, which were, however, easily controlled by the aid of the anæsthetic. Dr. Kennedy again met me in consultation that afternoon, and we decided that prompt action was imperative; so we rendered her completely unconscious, dilated the os with the finger, and without much difficulty delivered her of a living and dead fœtus—the former by the forceps, the latter by the feet. There must have been nearly three gallons of amniotic fluid. She rallied well and felt much relieved, but an hour later the convulsions returned with increased severity. She remained quite unconscious all evening until eleven o'clock, when she was induced to swallow twenty grains of chloral, which was repeated three times during the night, with the result that the convulsions ceased at three o'clock next morning and did not since return. But she did not remember anything of what occurred during the time commencing two days before the convulsions began and ending a week after delivery. Her vision, especially, remained very disordered, not being able to see *distinctly* the things which she did see, and believing that she saw many objects which did not exist. For instance, she was quite sure that she saw a little boy standing on the bureau breaking dishes. Three days after the delivery symptoms of puerperal mania became very marked. She asked for a knife with which to kill a man, whom she supposed to be in an adjoining room, and it required the united efforts of three people to keep her in bed. During all this time the kidneys continued to act very freely, as, indeed, they began to do an hour or two after the uterus had been emptied. On the seventh day she became so violent that it was no longer safe to keep her in the house, as neither chloral, morphia nor atropia had any effect. On the eighth day I gave her a large dose of bromide of sodium, after which she began to talk in a rational manner, saying that the medicine had done her good, and inquiring as to the nature of her illness, and how long she had been ill. Unhappily this improvement only lasted a few days, and shortly afterwards she again became so violent that I was constrained to order her removal to Longue Pointe Asylum, where she now is, after a year's detention, a lunatic. Her features have completely changed, and although quiet and docile, she evinces many of the characteristics of puerperal mania. She cannot bear to see her husband or any of her former friends, although she does evince pleasure at the presence of her little boy. What is being done for her cure I am unable to say, but I fear that her recovery is at least doubtful, at any rate remote.

Sir James Y. Simpson was of the opinion that puerperal mania was the direct result of the temporary disease of the kidneys, and although many able authorities differ from him in this view, I am inclined to believe that the mania is an evidence of the co-ordinating cells of the nerve centres having been bathed for a considerable time in very poisonous blood, and that the relation of albuminuria, uræmia, puerperal convulsions and puerperal mania may be stated as follows:

A moderate amount of renal congestion causes albumen to appear in the urine.

A greater amount of renal congestion causes the albumen in the urine to increase and the normal quantity of urea in the urine to diminish, and at the same time the urea being retained in the blood and bathing the nerve centres causes headache, disordered vision, etc.

A still greater amount of urea in the blood and of albumen in the urine causes poisoning, and at the same time starvation of the nerve centres, and dropsy of the brain to such as extent that irritation is set up and convulsions ensue.

And if this condition continues for a considerable time the nerve cells are seriously altered in nature, so that even when the cause is removed they can with difficulty or not at all recover their normal functional activity. But as no one can tell

just how a certain poison produces a certain effect, I am willing to leave that still in the realms of theory in order to return to certain definite facts, which now seem to me to be beyond any possible doubt. And the first conclusion I have come to after a close study of some twenty authors' observations is, that puerperal convulsions are not different from uræmic convulsions, and that they depend entirely upon uræmia and its concomitant albuminuria and accompanying œdema and uræmia of the brain. That the uræmia of the puerpera, unlike ordinary uræmia, depends on a removable cause, namely, pressure on the renal veins, or on the veins into which they empty. This is the opinion of many eminent authorities, and the one which is best supported by facts, notwithstanding some slight exceptional evidence to the contrary. One of the most significant of these facts is that the convulsions come on always during the latter half of pregnancy, and are more frequent and more severe the larger the uterus becomes. Also, that they are more frequent in twin pregnancies, as seen in my second reported case, and also in the subsequent history in my first reported case, who narrowly escaped having them in her next pregnancy, which was a twin one.

Another strong proof of their mechanical origin is that they are much more frequent in first pregnancies, when the abdominal walls are most resisting and where, consequently, the pressure on the veins is greatest. That we get many of the same symptoms in men or in non-pregnant women if from any cause the current of blood out of the kidneys is retarded, as, for instance, in mitral regurgitation. Only, in these cases the patient dies before the uræmia becomes sufficiently marked to cause convulsions. The fact that the urine begins to be secreted generally immediately after delivery; the only exceptions being when the kidneys have been damaged beyond repair.

The guiding principle of treatment which I wish to lay down dogmatically is this: That unless for grave reasons to the contrary we should induce premature labor at any time after the seventh month, at which we find the urine of the pregnant woman loaded with albumen or considerably deficient in urea. By freely accepting this course it removes all doubt and hesitation in our treatment of these most anxious cases. The induction of premature labor at the seventh month, or even earlier, is a procedure totally devoid of extra danger to the mother, and it gives to the child quite as good a chance of surviving as to allow it to run the gauntlet of a much more tedious labor at full time, when its own system is in a state of uræmic convulsions as well, and when, perhaps, it must be borne under conditions and surroundings the most unfavorable. That the child in utero suffers from uræmia just as much as the mother is amply proved by cases reported by Cazeaux and others, and our experience is that few children born during puerperal eclampsia ever survive their birth very long. In my first case the child died during the convulsions, and although I controlled them and saved the mother, it is probable that her life was purchased only at the price of the child's, for if it had not died, and she had gone on increasing in size as I then (and I now think, mistakenly) intended to let her do, nothing I believe, could have saved her. If I had followed this course in my second case, which I now report, I do not think that the mother would now be in the asylum, and perhaps one or both of her children would be alive.

Heretofore we have been left to interfere in these cases, and the rule has been to try to carry them on to the ninth month by medicinal and other treatment. But we should remember that every day the uterus increases in size the disorder of the kidneys becomes greater; and the longer we delay interfering, the danger of interference becomes more serious; for the reflex irritability of the nerves becomes such that the slightest irritation of the periphery causes convulsive impulses to emanate from the centres. We should also remember that owing to the mechanical nature of the malady we cannot count upon the cooperation of diuretics, for even digitalis, the king of diuretics, often fails us in these cases. And no wonder, for how can a medicine which only increases the secretion of urine, because it contracts the capillaries of the kidneys and increases the flow of blood through them, have any effect when the current of blood is dammed back by the constriction on the veins.

Puerperal uræmia, if left alone, is a very serious disease, as instanced by a mortality of 12 cases out of 36 reported by Braun, although that mortality is higher than we are accustomed to here. Wieger also reports a mortality of 25 out of 65 cases. In urging interference, I may be advocating something that many practitioners are already in favor of doing, but when such eminent

names as Gooch, Schroder and Playfair are on the side of letting them alone, I think that if the policy of prompt interference is the right one, as I believe it is, it is quite time that some definite law on the subject should be laid down for our guidance.

Discussion.—Dr. ARMSTRONG could not entirely agree with Dr. Smith in his method of treatment. He had seen many cases of severe albuminuria accompanied with œdema where convulsions did not follow. After quoting cases where even convulsions supervened, and yet mother and child were carried through, he held that only in the very worst cases should premature labor be induced.

Dr. GURD said he had, within the past couple of weeks, treated two cases of puerperal albuminuria accompanied with uræmic symptoms. The first was a lady who sent for him at the end of the eighth month of her sixth pregnancy, supposing herself to be in labor. The os was found not at all dilated. Twelve hours later, finding the os not dilating, her condition was gone into more fully. The pains were spurious,* set up each time she micturated, which was about every fifteen or thirty minutes, giving her great agony. She complained of severe headache, thirst, inability to sleep, drowsiness, twitchings, and had vomited several times. Temperature 102°. Her feet and ankles had been slightly swollen for about three or four weeks. She was given brisk purgatives, and digitalis infusion and iron with good results. The pains ceased and all the uræmic symptoms abated. The urine was next day passed voluntarily, and in much larger quantities. It contained about eight per cent. of albumen. The following day uræmic symptoms returned. In the afternoon of this day she had what the nurse called a chill, lasting twenty minutes, all her symptoms appearing worse toward evening. She was given a bath after the manner practised in Vienna, and recommended by the Braun, which is as follows; The patient is to be put into a bath of 99° temperature, the bath to be covered with a heavy blanket, leaving the face free. The temperature of the water is to be gradually increased to 100 or 112°. She is to remain in the bath for thirty minutes. A towel wrung out of cold water placed on the head relieves any distressing head sensations. Whilst in the bath the patient is to drink large quantities of water. After coming out of the bath she is to be covered with a warm sheet and then enveloped in blankets, when almost immediately free perspiration follows. The sweating is allowed to go on for two or three hours. This bath treatment is known often to bring on genuine labor; it did so in this case. Shortly after getting into bed she was taken with good labor pains, and in three hours was delivered of a healthy boy, evidently three or four weeks before time. Patient made a good recovery. Urine, examined three days after delivery, was free from albumen.

The second case was that of an undersized primipara, whom he had accidentally heard was much swollen about the feet, legs and face. On visiting her, she was found very œdematous and suffering from headache, loss of sleep, thirst, very frequent painful micturition, etc. Her urine contained about 30 per cent. of albumen. She had yet two weeks to go. Under purgative and diuretic treatment, with almost exclusive milk diet, all the symptoms passed away. She was now comfortable in every respect. Albumen gradually lessened, till now, ten days after treatment, it was only 12 per cent. *

Dr. TRENHOLME thought that the condition of the circulatory system had much to do with the prognosis and mode of treatment. In mitral difficulty, or whenever the circulation was otherwise affected, the cases were much more serious. He had frequently seen marked œdema and albuminuria in patients otherwise sound, and no serious trouble followed. He thought that operative measures should not be resorted to if the circulatory organs were sound and the patient otherwise healthy.

Pathological Specimens—Dr. WM. GARDNER exhibited the following specimens and related the cases:—

1. *A bottle of fluid removed from a retro-peritoneal cyst of the left loin.* The patient, female, aged 28, unmarried, asserted, and her mother confirmed the statement, that from childhood she had been large in the belly, but that in recent years she had been growing larger and had been suspected to be pregnant. Always well and able to work till a week previous, when she suddenly took ill with rigors, high fever, perspirations,

* On the 17th she was delivered of twins. At the end of a day's hard labor she had two convulsions, when the forceps were applied for the first child; the second was extracted by the feet. On the 22nd all were doing well.

vomiting and severe pain and tenderness in the left loin. On examination, a rounded smooth tumor occupied the left loin, enlarging the abdomen considerably on that side, and extending beyond the median line to the left; upwards it reached the edges of the ribs; downwards it reached the margin of the pelvis, but did not dip into that cavity. There was absolutely nothing further to be had in the way of a history. Urine healthy. The nature of the case being doubtful, and the symptoms urgent, it was decided to explore by abdominal section. An incision two inches long was made in the median from the umbilicus downwards. On opening the cavity the cyst was found to lie behind the peritoneum and intestines. The colon lay in front, and in such a position as to render the management of the case too difficult. This opening was closed and another made over the most prominent part of the tumor, about three inches to the left of the median line, on a level of the umbilicus. On getting in over the tumor it was tapped, and 70 ounces of a dark-brown turbid fluid containing numerous iridescent crystals of cholesterine was removed. The opening was enlarged, its edges stitched to the edges of the abdominal incision, and a glass drainage-tube left. From the moment of the operation the girl ceased to have pain, fever, or any other symptom. The discharge was slight. The cavity shrank rapidly, and when patient was discharged, twenty-six days after the operation, wearing a short piece of rubber drainage-tube, it was almost obliterated. The fluid contained a large quantity of pus. That it was evidently an old one, possibly congenitally, springing from near the kidney, and had suddenly taken an inflammatory action. Dr. Gardner said that of course the treatment was open to criticisms inasmuch as the fluid could have reached from the loin posteriorly without opening the peritoneal cavity, but he felt more at home in opening the abdomen than the loin, and the result seemed to justify the course pursued.

Dr. Ross related a similar case that occurred in the practice of Dr. Roddick, four years ago. A cyst in the neighborhood of the kidney was tapped, and found to contain a brown fluid filled with crystals of cholesteria.

2. *A cysto-sarcomatous tumor of the ovaries and uterus*, removed six days ago from a young married woman of 21, the mother of one child a year and a half old. The tumor had been noticed first in October, '86, and had grown rapidly, causing much pain, emaciation and interference with functions of both bladder and bowel. It was uneven, hard in parts and elastic in others, predominating on right side. The whole vaginal roof was a hard mass, the vaginal portion obliterated, and the os felt only with great difficulty. There were adhesions to omentum, extensively to colon and rectum, and to the whole floor of the pelvis. The fundus uteri was smelted into the mass, and the operation was finished by encircling the cervix with Kœberl's clamp, and, after amputating, securing it with pins externally at the lower angle of the wound. The hemorrhage was free; some of the cysts burst during removal. The cavity was well washed out with plain warm water and drained. Pulse ran high, 160 and over during the operation, and hypodermics of brandy were freely given. Every symptom had been favorable till the sixth day. The day after the operation the pulse was under 100, and the temperature had been normal for five days. The temperature then rose, remained high with fluctuations for six days. She is now on the nineteenth day, quite convalescent. The wire was cut and the clamp removed on the third day.

Hydrocephalus.—Dr. W. G. JOHNSTON exhibited a case of chronic hydrocephalus, observed in making an autopsy upon a patient who died of secondary cancer in lungs and liver. The primary growth, a scirrhus, was removed from the left mammæ by Dr. Roddick sixteen months before. Patient had been under observation off and on during this entire period), without any cerebral or mental symptoms having been noted. Convolutions flattened. Lateral ventricles distended, containing over eighteen ounces clear fluid; the venæ galeni involved in dense mass of fibrous tissue, apparently of inflammatory origin. They were not obliterated. No other abnormality beyond small mass of secondary cancer external to dura in course of anterior meningeal artery. Fontanelles closed by bony union. Skull cap flattened and bones very thin, maximum being 1-6" and minimum 1-10" over convexity. Cranial cavity capacious.

Tumor of the Prostate—Dr. BELL exhibited specimens from a case of tumor of the prostate, and read the following history of the case:—

J. H., aged 60, a farmer, was admitted to hos-

pital Oct. 9th, 1866. He was suffering from general cystitis, acute prostatitis and right epididymitis, and retention of urine. He had always been a regular and temperate liver, and had enjoyed the best of health until three years ago, when he had some hemorrhoids removed. He had never had venereal disease of any kind. From that time he suffered from frequent micturition, inability to empty his bladder at times, and his urine always contained a whitish deposit when passed. He had been taught to use a gum elastic catheter, and for two months before coming to hospital he had been obliged to use it every day, and seldom made water without it. On admission, his prostate gland was very much swollen, tender, hot and painful. He passed about sixty ounces of urine daily, which was neutral or faintly acid in reaction, and deposited on standing from 20 to 25 per cent. by volume of muco-pus. There was apparently no albumen in the urine beyond that produced by the pus. He had a subfebrile temperature, but his general condition was good. He was ordered to be kept in bed on milk diet, with linseed tea and water *ad lib.*, hot hip baths and opium suppositories when necessary, and his bladder was emptied three times daily with a soft rubber catheter. The acute inflammatory symptoms soon subsided, the pus in the urine diminished very considerably, his temperature became normal, and he was very much better in every respect, but could not empty his bladder. From the 12th of November the bladder was washed out daily with plain warm water. He improved steadily until the 29th November, when he had a severe chill and great pain in the right loin. The urine became scantier and was loaded with pus for a few days, but soon became more abundant and less purulent again. The patient became dull and somnolent with dry, brown tongue, moderate fever and obstinate anorexia, and gradually sunk and died on the 18th of December.

At the autopsy, Dr. Johnston reported the middle lobe of prostate enlarged, and containing a small abscess. Bladder mucosa somewhat congested. Ureters normal. Both kidneys enlarged slightly and hyperæmic; a little mucus secretion in pelves, which were otherwise normal. Throughout cortices a few small suppurating points corresponding with and apparently originating in pyæmic infarcts. Spleen enlarged and soft. No further examination was allowed.

Correspondence.

CHARLESTON, S. C., Feb. 14, 1887.

Editors CANADA MED. RECORD.

GENTLEMEN:—I felt complimented by your insertion of my paper on the Heart in your issue for December; but one or two errors will very likely confuse your readers when the subject is one which is, at best, very complex, and requires absolutely definite language.

On p. 56, 1st column, the word "covered" should be "coupled;" 2nd column, 16th line, the word "valves" which the printer has inserted, *destroys the sense:* for the *ventricles* (not the valves,) "are being filled from the auricles."

In printing the "*Formula*" it should be placed thus to be understood by your readers:

Stenosis.
Insufficiency.

Insufficiency.
Stenosis.

At the Base.— { A deranged 1st sound, etc., etc.
A deranged 2nd sound, etc., etc.

At the apex— { A deranged 1st sound, etc., etc.
A deranged 2nd sound, etc., etc.

With best respects and best wishes yours,

F. PEYRE PORCHER, M. D.

I have always read your Journal with great pleaure, your selections also being specially good.

Progress of Science.

SPRAINED JOINTS.

By EDMUND OWEN, F. R. C. S., London, Eng.
Surgeon to St. Mary's and Children's Hospital.

A sprain is the result of a twist or wrench which has stretched the fibrous capsule of an articulation and its synovial membrane, but which has not sufficed to cause either fracture or dislocation. The injury should be treated upon exactly the same surgical principles as those which guide us in dealing with a fracture or dislocation of a joint; yet a joint which is "only sprained" is somewhat apt to obtain but scant professional attention. Though the common saying teaches that "a sprain is worse than a break," the unfortunate subject of a sprain is usually contented with doing the best that he can for himself with arnica, cold water, or

oil, as chance, experience, or advice may suggest, seeking the surgeon's aid only for the remote and often intractable complications. In unhealthy subjects, and especially in children, want of treatment often entails articular troubles which run a lingering course and may end disastrously; and even with the strong a severe sprain is apt to involve a long continued enfeeblement of the part.

Immediately after the sprain there is want of pliability in the joint, due in part to the pain and tenderness caused by the violence, in part to the tension of the sensory nerve filaments from the sudden effusion, and in part also to the mere mechanical effect of the presence of blood and other fluids in and around the joint. In certain situations a serious wrench of an articulation may give no visible sign upon the surface of the body; especially is this the case with the hip, the shoulder, and the spinal articulations, all of which are thickly covered; stiffness will then be the only objective sign indicative of the lesion.

If a joint in the lower extremity be seriously sprained, temporary but absolute rest for it should be insured by, if practicable, putting the patient at once to bed; by raising the limb on a pillow, or in a swing cradle, until the heel is above the level of the chin, so as to hinder capillary and venous congestion, and by applying firm and even compression. I am convinced that judiciously applied compression not only checks further effusion, but also promotes the absorption of fluid which has been already poured out; and, as a rule, the patient experiences immediate comfort from it. At times, however, it is possible that from the tenderness of the skin, or from mere apprehension, the patient will not submit to the compression immediately after the injury. Then one must be content to apply either the ice-bag or an evaporating lotion. Cold plays a double part: by stimulating the vaso-motor nerves it causes a contraction of the small arteries, with the effect of checking further hemorrhage and inflammation and limiting the effusion, and by numbing the sensory nerves it diminishes pain. The lotion should not be used, however, as is often done, as a water-dressing under oil-silk. It must be applied on a single fold of lint with the fluffy side outwards, so that evaporation may proceed with energy. The lint must never be allowed to get dry, nor should the limb be covered over with bed-clothes. If a man sprains his ankle when out in the fields it should as quickly as possible be put into running water, and then be firmly bandaged with strips of wetted handkerchiefs; the boot should be worn, if he can get it on again, for the sake of the compression it affords, but it is better not to remove the boot at all until the joint can be bandaged. Nothing short of absolute rest in bed suffices when a child sprains a joint in the lower extremity; he must not be trusted to lie on a sofa, for he would soon be off of it. Where the hip-joint is sprained the limb should be raised and rest insured in the extended position by the application of the weight and pulley; so that if matters do not clear up there will be no need for further change of position. A sprain is often the beginning of an attack of hip joint disease.

In the case of the knee being sprained, the leg would be extended; in the case of the ankle being sprained, the foot would be put up at a right angle. But in each instance the limb should be carefully bandaged upwards before the compression is applied, or edema may follow; complete rest would be still further ensured by adjusting a splint to the side or back of the limb. Compression may be applied by means of a roller of domette, or by the additional aid of plastic splinting moulded on. With children a well padded flexible metal splint is of great service, but a casing of plaster of Paris and house flannel answers even better.

I have at present two men under my care, each with a severely sprained ankle, the part being swollen and discolored, and the foot stiff and useless. The foot and leg have been immobilised in well-lined plaster of Paris casings, and thus the patients are quickly enabled to get out of bed and go about with crutches, without risk or discomfort. In neither of these men was a fractnre to be detected.

When an ankle is greatly swollen from a recent injury, and signs of fracture are not evident, it is not advisable to conduct the examination for obtaining a knowledge of the exact nature of the injury in too inquisitive a manner. If the limb be treated on the principles enunciated above, it will be we l either for a severe sprain, or for a fracture without displacement. Possibly the patient might be unsettled at not being definitely informed whether there be fracture or not, for the oft-repeated question of the patient or parent as the surgeon examines the part is, "Is the bone broken?" But I am speaking merely of the principle involved in the surgery.

Absolute rest is demanded as long as heat of the surface or intra-articular pains persist. As the pains subside, recourse must be had to frictions and rubbings, and the use of stimulating liniment and cold douches. The rubbings should be executed always in the direction of the venous and lymphatic return, and may be combined with firm fingerings about the part, and with the rubbing-in of oil. When effusion persists in the painless joint, one may apply over the joint the even compression of a Martin's elastic roller for a certain length of time each day, the skin being duly protected by a soft covering. This is a highly satisfactory method of treatment in cases of chronic thickening and effusion. Leslie's soap-strapping, too, when evenly and liberally applied over a sprained joint, is an excellent therapeutic measure in the days following close upon the injury.

At other times, nothing seems to render such efficient aid as a wetted calico bandage. Compression in some form is needed.

On physiological grounds, the early treatment of a sprained joint by fomentation or poultices is

inexpedient. The application of warmth produces a vascular fulness of the part, and a relaxed condition of tissues which are in need of being toned up and strengthened; though if synovial inflammation of an acute kind follow on the sprain, leeches and fomentations may not improbably be indicated later on. For the promotion of the absorption of the lingering products of effusion, an alternation of douchings under streams of hot and cold water gives valuable aid. In no stage of the pathological process associated with a sprain should arnica solution be applied. One has met with instances in which painful and serious cellulitis has followed its use, even when there had been no previous lesion of skin. How is it that arnica first obtained its reputation in the treatment of sprains, and how has that reputation managed to survive so long?

A surgeon was driving his wife in the country when the pony fell, and the occupants of the carriage were thrown out into the road. When I saw him a few hours after the accident he was wearing his right arm in a sling, the elbow being at an obtuse angle. He said that, in the fall, the right hand (in which he was holding the reins) and the arm were doubled and twisted underneath him, and that though he was sure no bone had been broken, he could neither bend nor straighten the elbow on account of the severe sprain which it had received. He said that on his way home, and certainly well within an hour of the fall, on placing his left hand under the damaged elbow he found a soft swelling which seemed pretty near as large as an egg; his wife could also feel through his coat sleeve. Having taken the limb out of the sleeve and removed some water-dressings, universal and extensive effusion in the articulation was evident; the distended synovial membrane was specially bulging about the head of the radius. The intra-articular pain was intense. There was no contusion of the skin, nor any definite ecchymosis; movement caused great distress. Beginning at the fingers we firmly bandaged the extremity with a roller of domette (which from its softness and elasticity adapts itself with delightful evenness and comfort), drawing the turns which surrounded the swollen joint itself more closely and firmly for the sake of compression. Then, having bent to the proper form of the arm a padded flexible iron splint, and carefully adjusted it, the elbow was packed round with cotton-wool, and having enclosed all in a second and wider domette roller, and having got the patient to bed, we arranged the arm upon a pillow. The compression and security afforded by the roller and splint gave great satisfaction. On the second day we re-adjusted the splint and bandages, which had now become slack. Most of the tenderness and swelling had departed. Two days later, and at other intervals, we tightened up the bandage, finding always steady improvement. In ten days the splint was removed, and cautious use of the arm was allowed, but for the entire removal of the stiffness a course of shampooing from a professional rubber was resorted to. The effusion which had come on so quickly, within an hour of the injury, was evidently not inflammatory in its nature; probably it consisted of synovia, blood and serum.

The other occupant of the carriage had severely sprained her left ankle, which was painful, stiff, and full of sero-synovial effusion. There was no fracture. The swelling was confined within the limits of the synovial membrane; it did not extend up above the external malleolus in the manner so characteristic of Pott's fracture. The treatment adopted consisted in surrounding the ankle with an even layer of cotton-wool, and in bandaging from the metatarsus upwards with a soft roller, the turns of which were continued well up the calf of the leg. The foot thus firmly encased was raised upon a pillow. In a few days all the excess of synovial fluid had disappeared, but the firmly applied bandage was still worn. In a week she began to use her foot, and was finding comfort in having it and the ankle rubbed with oil several times during the day. On the occasion of my first interview, the patient volunteered the important clinical statement—that after the accident her foot and ankle were fairly comfortable until her boot was removed. Probably if a bandage of plaster Paris casing could have been applied immediately after the accident, but little joint effusion or edema would have occurred. Centainly, compression of a recently-sprained joint gives results, both as regards expedition and thoroughness, with which those obtainable by the system of evaporating lotions can not be compared.

If the sprained joint be in the thumb or finger, much pain and want of pliancy may result. A small splint should be moulded on; firm compression with a pad of cotton-wool and a soft bandage exercised; and the hand worn in a sling—it should not be left free except for the cold douchings. A few days absolute rest is expedient.

Even long years after all the local signs of a sprain have passed away, a jerked or sudden movement of the joint, or a change in the weather, reminds the subject that the part is not absolutely sound. Nearly twenty years ago, I severely sprained my left wrist at football, and to this day it has not absolutely recovered. I cannot flex or extend it as I can its fellow. A sudden movement of it is often accompanied with audible crackling and discomfort. From a close and interested observation of this joint I feel convinced that in the crevices between the articular surfaces of the bones, and against the attached parts of the capsule out of the way of pressure, there are gowing delicate and injected fringes of the synovial membrane. The synovial fluid is thin in quality and in excess of the normal amount; there are no adhesions inside the articulation, but there is probably some shortening of the extra-articular fibrous tissues, which were implicated in the inflammation—a shortening secondary to inflammatory thickening. Probably this shortening of

the fibrous tissues plays the important role of a perpetual splint shielding the enfeebled synovial membrane from further shock and distress. On no account, therefore, will these adhesions be broken down or stretched by manipulation ; such a treatment is contra-indicated by the pain which closely attends any attempt at more than the accustomed movements of the joint. The very audible crackling, which even a bystander may sometimes hear, on working the joint is the result of the altered synovial fluid being quickly driven by the movements of the joint between the vascular fringes.

Occasionally, when a joint has been wrenched by a recent accident, and is in consequence painful and useless, the manipulative examination which it receives from the surgeon is the means of removing much of the pain, as well as restoring a good deal of the lost function. I am satisfied that such improvement is real, and not merely subjective. Yet because in the weakly and ailing such a therapeutic measure might probably be attended, either, immediately or remotely, by disastrous results, and because of its utterly speculative nature, it is not to be recommended as routine practice, though it may well be kept in reserve for rare and special occasions. It certainly has a close and important bearing upon bone-setting. A man sprained his ankle, the surgeon examines and reports accordingly ; but, because no bone is broken, he perhaps speaks of the lesion in a careless or off-handed manner, and does not insist on the necessity of rest and of other appropriate treatment. So the ankle does not get sound, and the faithless patient resorts to a quack, who at once finds " a small bone out of place." Then come a sudden twist and a crack, and lo ! " the bone is in again." The patient believes that a bone has there and then been restored to its place, because he is at once absolutely more comfortable, and can not only move the joint freely, but can even accept the advice to throw away his crutch or his stick, and walk on his damaged foot without further help. Perhaps he is told to go home and apply ice ; at any rate from that time he considers himself to be—and indeed is—cured. Forcible manipulation is, of course, the bone-setter's panacea. I have known him to employ it in the case of fracture of the surgical neck of the humerus, and, as may be excepted, with very serious results. In the case of recent sprain, however, the patient cannot but believe that the bone-setter's statement is true, because, beyond a doubt, his manipulation has proved effectual.

The following report illustrates the point :—A gentleman of highly nervous temperament came to me with considerable bruising of the deltoid, the day after receiving a fall, which might have been attended with much more serious consequences. The arm was so stiff at the shoulder-joint that he could not raise it to dress himself, nor could he touch the ear of the opposite side whilst his elbow was brought toward the front of the chest,—it remained permanently though slightly abducted. Any movement of the arm was attended with pain and distress. There was no definite hollow beneath the acromion process, nor any other unequivocal sign of dislocation. There was a great element of obscurity in the case ; the patient was in pain and apprehension, and expressed his fear that the shoulder-bone was " out." A consultation on the case was not attainable, and the course of action had to be decided. So, to err upon the safe—if error there might be—and in order to make a thorough and practical examination of the joint, I agreed with him that there was " displacement of the shoulder-bone," and laying him upon the floor, with my heel in the axilla, I flexed the fore-arm to slacken the biceps, rotated and pulled down the arm, and then adducted it *vi et arte* and in a most determined manner. There was no click, or the sign of a re-adjustment having taken place, but immediately on the patient rising from the ground he said that he was much more comfortable ; he had lost most of the pain ; he could move his arm with comparative freedom ; and to his delight and my satisfaction he dressed himself without assistance. He was convinced that I had reduced a dislocation. In my own mind I was sure that I had not, but for obvious reasons I did not tell him that the success attending my treatment was worthy of a more exact diagnosis. It is with no sense of pride that I record the case ; nevertheless, it might be expedient to adopt this treatment on another similar occasion. With a hyper-sensitive and nervous patient, and a fat or swollen shoulder, it is occasionally impossible to affirm without the aid of an anæsthetic that there is no displacement. Traction on the bent elbow with the heel in axilla enables the surgeon to make the necessary examination. Certain am I of this,—that my nervous patient would not have examined him if I had first said that I thought there was no displacement.

I have observed the same course of events in other cases. For instance, a man has just damaged his ankle, which is now painful, swelled, and stiff ; a thorough manipulative examination reveals no definite lesion. But immediately after the handling the patient finds the food so much better in every respect that he talks too lightly of his injury and wishes at once to walk about. Or an elbow, knee, or wrist, is stiffened by a recent wrench. On being thoroughly overhauled, nothing is found absolutely wrong with it ; but the patient, though a sufferer during the examination, finds the joint greatly improved by it. The surgeon will rightly refuse to include such a speculative therapeutic measure in his routine practice ; but its blind employment by the charlatan is the means of securing many a triumphant success.

Where a limb is stiff from chronic muscular rheumatism, much good may often be done by *massage*, and by sudden movements imparted to

it, the stiffness disappearing by magic, whilst no harm can follow the treatment.

Stiffness may follow on a sprain from effusion taking place, not into the synovial membrane of the articulation, but into a sheath in connection with a neighboring tendon. One has often to treat such effusion in the sheaths of the extensors of the thumb and wrist, and also in those of the tendons of the tibial muscles and of the extensors of the toes. It is, of course, easy to differentiate between an articular and a thenar effusion; the same principles direct the treatment in each case I have at the present time under my care a wrist which is stiffened from slight effusion into the sheath of the radial extensors; great relief is being afforded by the firm compression of a domette roller which is kept constantly wet.—*The Practitioner.*

SOME PRACTICAL SUGGESTIONS ON THE TREATMENT OF DIPHTHERIA.

Dr. Wm. Porter (*Journal American Medical Association*):

Diphtheria is a common disease, and it is one of he most fatal. As one illustration of many, in nve years there were 17,193 cases in New York alone and 7,293 deaths. It is a disease that every physician will be called to treat sooner or later, and being called must act promptly. This is not the place for a long essay upon the different theories of diphtheritic contagion and progress, rather let us enter at once upon the discussion of the practical questions involved in conducting the disease to a favorable issue.

Let me very briefly sketch the manner of invasion according to conclusions which seem most reasonable and are by many accepted:

1. Diphtheria is contagious—or rather portagious, and of parasitic origin.

2. It is most readily implanted upon a mucous membrane denuded of its epithelium.

3. It is probably always local in its incipiency, sometimes becoming rapidly systemic, though in rare cases apparently systemic, from the beginning.

To further explain rather than to argue these propositions, let me say that the best protection against diphtheria is mucous membrane entirely healthy; and an ordinary acute or subacute laryngitis or pharyngitis is a condition favorable to the implanting of the diphtheritic germ. When the epithelial layer is intact the diphtheritic germ finds no foothold, but when there is an abrasion or denudation of the lining membrane, the diphtheritic bacteria first attach themselves to the surface so prepared for them. This is the local period of the disease, and no micrococci are found in the blood—there is no constitutional symptom. Sometimes, though, there may be rapid surface involvement, and free formation of the characteristic membrane, there may still be little absorption of the diphtheritic virus.

Many of these almost purely local conditions suggest a doubt as to their specific nature. It is well to give the patient the benefit of the doubt, and to treat urgently all suspicious looking exudations upon the surface of the respiratory tract. Practically, a certain number of cases of diphtheria are constitutional from the beginning, the point of infection being in some recess of the naso-pharynx or larynx and easily over-looked—or is beyond the range vision. I am not sure but that infection may occur from primary invasion of the membrane of the alimentary canal. Klebs, in the second Congress of the German Physicians, speaks of a diphtheritic involvement of Peyer's patches, resembling the reticular appearance in the earlier stages of typhoid. In by far the greater number of cases the rapid multiplication of the bacteria—whether sphero—bacteria as are found in severe cases, or whether short and slender rods as in milder cases—produces an inflammation of the mucous membrane, exudation takes place, the epithelial cells die, and the bacteria pass into the blood and rapidly multiply thoughout the circulation. Even should we deny with Beale that the contagium is bacteria, we still must admit that the hypothesis of local infection furnishes the most rational explanation of the sequence of symptoms.

Granting this, we have two purposes in treatment in the early stages of diphtheria:

1. To destroy or render harmless the local manifestation of the disease.

2. To increase the power of resistance in the general system to infection.

In dealing with the false membrane all measures which would tend to irritate or injure the air passages, should be avoided. There should be no tearing away of the exudation, or application of caustics—nor do I think that, except in cases where there is only a small, well defined patch of membrane, the use of the galvano-cautery will prove expedient. To prevent absorption, not only should we avoid making new abrasions in the throat, but I have thought it wise, as far as possible, to cover up those that already exist.

First of all, it is well to remove from the naso-pharynx, or pharynx, if that be the site of invasion, whatever of accumulated mucus and *débris* there may be. This may be readily done by means of a small syringe, and a weak solution of salt water, or of Lysterine. This may be used either through the nostril or directly in the pharynx.

To loosen the attachments and hasten the resolution of the diphtheritic membrane many means have been advocated.

When the patch can be reached, a solution of papayotin may be applied; or better still, one of trypsin. This last used in solution, as suggested by Fairchild and Foster, or still better, a few grains with one or two of bicarbonate of soda, made into a paste with water and spread upon the diphtheritic patch, is the most rapid solvent I have known. If the local disease is beyond the reach of such an application, an alkaline solution of trypsin may be sprayed into the nose or larynx

After several applications of trypsin within the hour, a still futher attack may be made upon the local disease. Having used more or less freely most of the germicides, astringents and antiseptics commended in the treatment of diphtheria, I have abandoned all else for a solution of equal parts of the tincture of the chloride of iron and glycerine. I have cause to consider this, when well applied over the entire extent of the diseased surface, an almost complete bar to the progress and absorption of the diphtheritic virus.

1. If the potency of the disease lies in the rapid multiplication of bacteria, so strong a chlorine solution is certainly indicated.

2. If absorption takes place through the abraded surfaces and "mouths of lymphatics open," as stated by Oertel, we would, from *a priori* reasoning, expect some good from the local use of iron, while the glycerine may be something more than a mere vehicle, in that it may by affinity relieve to some extent the turgid capillaries of the mucous membrane. The application should be made frequently.

Let me say, in urging the efficacy of this agent, that for two years I have not seen a case of diphtheria die where the whole of the false membrane could be seen and repeatedly covered with this solution, and where appropriate general treatment was given. Thrice within the last week, and many times during the past year, I have seen the characteristic membrane shrivel up and become detached under the influence of the iron and glycerine.

When the local attack is out of reach of the direct application by means of the brush, or better still, the cotton covered probe, the case is very different.

When the invasion is in the naso-pharynx, or in the larynx, the result may well be dreaded. Even in such instances I believe the best procedure is to apply the iron locally by spray, and where possible by the cotton covered probe.

The covering in of the diphtheritic patch with tolu varnish, as recommended by Mackenzie, may follow the thorough use of the iron solution, and is doubtess protective.

Not only is local treatment important, but it is important to institute it early. The physician should be called at once in every case where there is a doubt. Parents should feel that they are responsible for delay, and that delay is exceedingly dangerous. Many cases, that during the first twenty-four hours are easy to treat and curable, are a little later beyond the reach of the most skilful.

A few words as to general treatment. Here, too, I have no sympathy with halfway measures. First of all, in every case, I nearly always counsel the administration of enough of calomel and soda combined to thoroughly evacuate the alimentary tract. It empties the canal of any accumulated material, it stimulates important secretions, and with Ritter, though not to the extent to which he advocates it, I believe it has a favorable influence upon the general condition. At least it clears the decks for action. As soon as the bowels of the child have been well moved, and sometimes not waiting for that, the internal use of the iron and glycerine solution (the same as that used in the throat) may be begun; for we need not fear any chemical reaction. To show that others are falling back upon this well-known agent, let me quote from an editorial in a recent issue of the *New England Medical Monthly:* "It is interesting and somewhat gratifying to note that after each excursion into the domain of experimental medicine, the profession invariably returns to the older and more effective method of treating diphtheria, which consists of tonic doses of the tincture of iron and a system of extreme nourishment."

To anticipate and antagonize general invasion, the general as well as the local treatment should be instituted early. Where the symptoms demand I prescribe two drops of the iron and glycerine solution for each year of the child's age, in a little water every two hours, and midway between each dose the diphtheritic patch is to be touched or sprayed with the solution. Thus there is an opportunity for the ferric solution to be brought in contact every hour with so much of the diseased membrane as is in the pharynx.

I have not discussed much of the poly-treatment of diphtheria as practised to-day—nor have I time to outline the emergencies which may arise, as I had thought of doing. My object has been to propose a plain and direct method of treatment which any one may use and which is not an experiment.

Many other remedies are often to be added. Pilocarpine, when the skin is dry and there is spasmodic laryngeal contraction; quinine, when the fever is excessive; steam from slacking lime, when respiration is labored and the respiratory tract dry; and tracheotomy or intubation when the larynx is greatly obstructed.

Let me, in conclusion, suggest that the physician demand of the people among whom he practices that they call him at once when suspicious symptoms are observed, and that he answer quickly, act promptly, and see that his instructions are implicitly obeyed. To treat diphtheria is to fight a battle—there should be no delays, surprises, nor compromises.—*Medical Digest.*

HAMAMELIS IN THE TREATMENT OF DISEASES OF THE SKIN.

Witch-hazel has long been recognized as a valuable therapeutic agent, both for internal and external use. For years it has been placed upon the market by venders under various names, and highly extolled for its medicinal action. In very many diseases it has fulfilled all the claims which

have been made for it, such as its use for piles, sores, cuts, and all hemorrhags. It has, owing to its decided action in these diseases, become in America a standard domestic remedy, which is frequently resorted to by physicians, more particularly those residing in the country.

Successful results have again and again been noted, by many physicians, of the action of this drug in numerous diseases in which other remedies have failed. Ringer, among others, has noticed, I may say, this uniform action of hamamelis, and reports that he has known it to arrest hæmaturia in four cases which had resisted many other remedies. It has been found to be equally effective as a hæmostatic in bleeding from the lungs and other organs. Its action is claimed to be that of a vascular sedative.

Dujardin-Beaumetz thinks that it has an action on the muscular fibres of the veins. Hector Guy, however, alleges, after testing the drug thoroughly, that it shows no special physiological action on the vascular system. Several American investigators have also recently denied the action claimed for hamamelis.

Clinical experience, however, is more reliable than physiological theory, and clinically I know of its value. I have referred to it at greater length in a paper, on its general action, read before the Section of Therapeutics at the last annual meeting of the British Medical Association. I again affirm that it possesses undoubted action in lessening local inflammation.

Abundant evidence, clinically, has been furnished of this action by a large number of physicians, chiefly in America, in which country it is the more largely used. It is not my object, in this brief paper, to give an extensive *résumé* of hamamelis, but to limit my remarks to its good effect in the treatment of disease of the skin.

Hamamelis may be employed in diseases of the skin, both internally and externally. Administered internally, in the form of the fluid extract, it appears to lessen the flow of blood through the vessels in inflammatory affections of the skin. Its action is, perhaps, more decided in eczema, especially in the acute and subacute forms. In cases in which the disease is more or less general, the surface red, hot, and tumid, the use of from one to thirty minims of the fluid extract of hamamelis in water or on sugar, every two or three hours, often has a most decided and speedy good result. The engorgement lessens and often disappears. It may be necessary in order entirely to remove the disease, to apply, in addition, some appropriate local treatment. The action claimed for hamamelis is, not that it always cures the disease, but that it lessens the flow of blood through the vessels, and thus relieves, benefits, and hastens a cure. In no class of cases will witch-hazel act so well as in those unfortunate infants suffering from pustular eczema or crusta lactea. The fluid extract of hamamelis in infantile eczema can be administered in from a half to five drops, in syrup or milk, every two or three hours. In many cases its use will cause all constitutional excitement to abate, the serous or sero-purulent discharge to lessen, and the inflamed and swollen condition of the tissues to decline. It will, if persisted in, very often thus bring to the little sufferer the greatest relief from the high vascular excitement and the intolerable itching.

Hamamelis is also a valuable remedy locally in eczema, either in the form of the tincture, or in that of the diluted fluid extract. In some cases, in addition to its internal use, it may also be well to apply the drug locally. In others the tincture is the preferable form to use, from two to eight drachms being employed with four or five ounces of water. A piece of old muslin is saturated in the lotion and spread constantly over the inflamed part. In others, again, an ointment is better borne, and can be prepared by incorporating from a half to two or more drachms with some fatty vehicle—lard, suet, or lanolin being always preferable. Hamamelis thus used has both an astringent and a sedative action on the tissues, and will often quickly lessen inflammatory action it the part to which it is applied.

In erysipelas, I have known some good results to follow from its internal administration, but the results so far are not sufficient to warrant my recommending it as a remedy to be depended upon to control the constitutional symptoms of this disease. Locally, a lotion of hamamelis, one part of the tincture to five or six of water, may be employed in erysipelas in addition to other topical agents. It has, by its evaporating action, a most delightful refrigerant and soothing effect upon the hot and tumid skin. Its efficacy is often enhanced locally in erysipelas by adding one or more parts of tincture of opium to the lotion. Hamamelis in acne, particularly in the pustular form, acts well both internally and locally. It lessens the discharge, and, by its local astringent action in the form of a lotion, brings great relief to the inflamed and distended glands. In rosacea, its action is even more decided by its controlling effect upon the enlarged capillaries used both internally and externally. In obstinate cases, I usually push the drug to full doses, giving often as much as two drachms three or four times daily, and I have applied at the sane time a lotion of one part of the tincture in four or five of water. The lotion is increased from time to time until it is applied in full strength. The enlarged capillaries slowly contract under its continued use, the engorgement lessens and the tissues of the part tend by degrees to become normal.

Hamamelis in the form of the tincture is a remedy of very great benefit in both seborrhœa oleosa and sicca. A lotion composed of one part of the tincture, with three or four of water, removes rapidly the greasy and glistening condition present on the face and other parts of the body in those afflicted with seborrhœa oleosa. In

like manner it removes and cleanses the surface of the scales and crusts, and has an astringent action upon the follicles in seborrhœa sicca. Loss of hair, which so often follows from the dry form of seborrhœa, is not only prevented, but the disorder removed by the local application of the tincture. In employing it in this disease, the tincture should be applied in full strength, or with half water. The efficacy of the lotion is often increased in this form of seborrhœa, and in alopecia, by the addition to it of from one to ten grains of corrosive sublimate to each four ounces. The tincture, either alone or combined with ten to thirty grains of boracic acid, promptly lessens and often thoroughly arrests the excessive secretion of sweat that occurs on the hands and feet, and in the axillary and inguinal regions. It acts frequently in a similar manner in fetid secretion, not only in lessening and stopping the discharge, but in allaying all unpleasant odor. In the latter disease the action of hamamelis is often enhanced by the addition of either five or ten grains of corrosive sublimate or boracic acid. The same preparation of hamamelis alone, or combined as above recommended, is an efficacious application is many forms of itching of the skin.

Hamamelis internally is a useful adjuvant to other remedies in the treatment of certain forms of psoriasis. It is more especially adapted to those cases which are attended with severe inflammatory action and itching of the skin. The fluid extract of hamamelis in large and repeated doses, in such examples of psoriasis as referred to, will often lessen the local symptoms and assist very much the action of other suitable remedies in controlling or removing the disease. The same preparation just alluded to is also of great utility in purpura, especially in the simple variety. It must, however, be given in full and frequently repeated doses, until the desired effect is produced.

Lastly, I desire also to testify to what has already been so ably reported by Dr. Musser, of Philadelphia, and others, of the value of hamamelis in the treatment of ulcers, particularly the varicose form. From the administration of full doses of the fluid extract, and the local application of the tincture, I have very often observed indolent, inflamed, and irritable ulcerative surfaces rapidly take on healthy action, and be finally cured. In employing hamamelis I always prefer for internal use the fluid extract, which is more certain in its effect. The tincture is usually sufficiently strong for all local applications, and very often it becomes necessary to dilute it with water.—SHOLMAKER. *The Medical Bulletin.*

CHRONIC PROSTATIS.

By W. H. DANFORTH, M. D., in *North Western Lancet.*

Chronic prostatitis is, in the majority of cases, the result of a gonorrhœa, where the inflammation has passed the compressor urethræ or the prostate itself.

Next in frequency as causes come masturbation and excesses in venery, as these habits keep up a continual congestion in the prostatic region; but in this case the inflammation is chronic from the beginning, and usually the secretion is mucous and not purulent.

The disease may arise from stricture, unskilful instrumentation, irritating drugs, and, perhaps, from the passage of concretions and sand in the urine.

Probably the prostate itself is not always affected by the inflammation; for it is often found normal in size and not tender to the touch; this is most noticeably the case in the chronic cases arising from masturbation. For this reason it seems incorrect to apply the term "prostatitis" to every inflammation in the prostatic urethra. The inflammation probably always begins in the mucous membrane of the urethra, and may or may not extend into the follicles of the gland later.

If we adopt Ultzmann's view, we apply the term "catarrh of the neck of the bladder" to all inflammations of the posterior part of the urethra, whether involving the prostate or not.

When an acute attack of prostatitis comes on during a gonorrhœa, it is announced by very frequent and painful micturition, weight and throbbing in the perinæum, pain on defecation, and, perhaps, an attack on retention. The symptoms of the chronic form, whether from an acute case or other cause, are as follows: (These will not all be seen in the same patient, usually.)

(1) Increased frequency of micturition, but much less than in the acute form. Ultzmann's says: "Frequent micturition in the disease of the posterior urethra is such a very characteristic symptom, that from the presence of this sign alone we can always conclude with certainty upon a lesion in the neck of the bladder." (2) "Bearing down" and uneasiness in the perineum and anus. (3) Slight pain or uneasiness at the end of micturition. (4) Tenderness around the prostate on passage of a sound. In long standing cases the urethra becomes anæsthetic, and this symptom is lost. (5) Inability to urinate on making the attempt is a prominent symptom. (6) Diminution in the force of the stream and dribbling after micturition. (7) Reflex spasm of the compressor urethra; this is of common occurrence. (8) Frequent erections and erotic desires, as well as frequent seminal emissions at night, are often complained of; but in cases of long durations the opposite extreme is found, and partial or complete impotence may be present, causing the utmost depression. (9) There may be a discharge of mucus from the urethra, showing the presence of inflammation anterior to the compressor urethra; when, however, the inflammation is confined to the prostatic urethra, the secretion appears only in the urine. This, of course, is due to the strength of the compressor, keeping back secretions posterior to it. (10) Mucus may be discharged from the urethra during straining at stool, simulating the

discharge in spermatorrhœa, the microscope settles this point. (11) When the urine is passed in two portions, characteristic appearances are seen. Ultzmann says, "If only a little secretion has collected in the posterior urethra the urine in the bladder remains uninfluenced, and if we have the patient urinate successfully in two glasses, only the first portion of the urine passed will appear turbid, the second half remaining clear and transparent. If, however, the secretion in the posterior urethra is considerable in amount, it will flow back into the bladder, make the urine more or less turbid and even irritate the bladder itself. In this case, both specimens of urine (passed into two glasses) will appear turbid. However, as a distinction from a primary cystitis, the first half of the urine will appear more turbid than the second, and will contain more compact flakes, which all come from the urethra, and which, accordingly, are absent from the second portion of urine passed." (12) These "flakes" are so-called "prostatic shreds," and consist of short, thick, clumpy masses, which, under the microscope, are seen to be collections of pus, prostatic epithelium and mucus, with sometimes a few spermatozoa. They occupy the follicles of the prostate, are washed out by the urine. (13) Shreds from the anterior urethra may also sometimes be seen in the first portion of the urine; these are longer and thinner, and consist of pus and urethral epithelium. (14) The urine contains mucus, prostatic epithelium, pus, often spermatozoa, and sometimes blood corpuscles.

A trace of albumin is often seen, which disappears when a cure is effected. (15) On rectal examination, the prostate is usually found somewhat enlarged and tender; it may be normal in size and not tender. In which case the inflammation is probably mostly in the mucous membrane of the urethra. (With enlargement of the gland there may be residual urine.) (16) Neuralgic pains in the back and groin are frequent subjective symptoms. Dr. F. S. Watson says: "These pains vary as to constancy and duration, and may be entirely absent."

The frequency of micturition, with pain, and blood appearing at the end of the act, may stimulate the symptoms of stone in the bladder. This happens only in the acute cases, and rectal examination and sounding make the diagnosis clear. True hypertrophy of the prostate occurs only after the fiftieth year, and can hardly be mistaken for an inflammation.

In cystitis the pain is felt above the symphysis pubis instead of in the perineum; the urine is generally alkaline and the second part of the urine is as turbid as the first. Cystitis is, however, often associated with a chronic catarrh of the neck of the bladder.

The treatment should be both general and local.

The patient should take no alcohol, he should sleep on a hard mattress in a cool room; he should take moderate exercise daily out of doors; his bowels should be kept open, and he should be given tonics and plenty of nourishing food. The drine must be kept dilute and unirritating by diuretics.

For this purpose benzoate of soda, twenty grains, given four times a day, is an excellent remedy.

Locally, counter-irritation to the pereneum is beneficial. One side of the raphe is to be painted with cantharidal collodion or tincture of iodine, and in a few days the other side. This may be kept up for some time, and will usually relieve the sense of weight and uneasiness. Care must be taken to prevent the irritant from touching the anus.

Together with this the prostatic injection of nitrate of silver is probably the best remedy. It is best to begin with a solution of two grains to the ounce, and increase to five grains. In making the injection it is well to pass a good sized sound first, in order to stretch the urethra so that the fluid may readily penetrate to all parts. (The sound should be lubricated with glycerine, as oil will form a coating over the urethra and modify the effect of the application.) Then a drachm of the warmed solution is to be injected slowly, the point of the syringe having been located at prostatic urethra by the finger in the rectum.

Ultzmann's syringe catheter, fenestrated on the sides, connected by a rubber tube to small syringe, is the most convenient instrument to use.

The application should be made twice a week, using no more than a five-grain solution, and the treatment kept up for six or eight weeks. If, in that time, no improvement is noticed, the injections should be discontinued for a time and other means employed.

Combined with the deep injections and counter-irritation, large sounds to be passed once or twice a week. In the large majority of *chronic* cases the above treatment will bring about good results. It is particularly applicable to the chronic "mas-" turbation cases."

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THE NEW MEDICAL ACT FOR THE PROVINCE OF QUEBEC.

The committee named by the College of Physi-

cians and Surgeons, to prepare the new Medical Bill, have placed the preparation of it in the hands of Mr. Pagnuelo, Q. C., who has submitted to them a rough draft. Several meetings have been held, at which it has been discussed; but after mature deliberation, it has been decided not to bring it before the present session of the Quebec Legislature. In this decision we think the Committee have shown wisdom. At the same time we would suggest that the time when it was intended to bring the Act into force must of necessity be extended. We also hold the opinion very strongly that the Act should not be made re-troactive. On this point, we know there is a very strong feeling among the students of the various schools, and as it will affect them materially we think their feelings should be consulted. Especially is this the case, when we know that if such changes,as are proposed in the new Medical Act, were University changes, students who had actually commenced the study would not be affected by them. This is the rule in Universities, and we fail to see why the College of Physicians and Surgeons should adopt a different course.

COLLEGE OF PHYSICIANS AND SURGEONS, PROVINCE OF QUEBEC.

We specially direct attention to the advertisement of this College, which will be found on the first page of the Record. The date of the preliminary examination for the admission to the study of Medicine *is on the 5th of May.* In our last issue it was erroneously stated to be the 12th of May.

The various Medical Schools in Montreal closed their lectures the end of this month, and are now engaged on the examinations. In our next issue we will give the results.

The proposed changes in the preliminary examination for admission to the study of Medicine are exciting the heads of the two Protestant Universities in this Province. We propose to deal with this question in our next issue. In the meantime, we must say that both Universities are very much to blame in having allowed this matter, heretofore, always to have been decided by their Medical Faculties. The sudden awakening which has overtaken them is likely to lead to some unfortunate complications.

NERVOUS HEADACHE.

Professor Arnold of Baltimore says that in nervous headache of the neurasthenic variety, he has found much benefit from twenty drops of Ether and ten of the Tincture of Canabis Indicus. It is recommended to precede this remedy by a good night's rest, obtained from chloral.

NEW MEDICAL JOURNAL IN MONTREAL.

We have received the first number of "Le Gazette Medicale de Montréal" edited by Drs. Hingston, Paquet and Desjardin. It is elegantly printed, and the names of the editors a sufficient guarantee of the character of its contents.

HYDRASTUS CANADENSIS IN UTERINE HÆMORRHAGE.

Dr. Reynold W. Wilcox reports in the *N. Y. Medical Journal* for February 19th forty-three cases of various forms of uterine hæmorrhage, in which he employed the Fluid Extract of Hydrastus Canadensis in doses of twenty drops, three or four times a day in a wine-glass of water. The result was excellent.

PNEUMONIA IN NEW YORK.

The very variable weather which New York has experienced this winter has been prolific in producing Pneumonia, and that of a fatal type.

PERSONAL.

Dr. Bell and Dr. Sutherland of Montreal propose leaving for Europe some time next month. Dr. Roddick of Montreal has left Florida, on his way home, and will be here early next month.

Dr. Kennedy, Registrar of the Medical Faculty, of Bishop's College, has gone to Colorado for the benefit of his health. He proposes to remain away till early in May.

Dr. A. Lapthorn Smith and Dr. George T. Ross, of Bishops College Faculty of Medicine, leave for Vienna next month, where they will pass the summer returning in time for the opening of the winter session.

THE CANADA MEDICAL RECORD.

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CASE OF TUBAL GESTATION.

By DR. CARR HOLSTOK ROBERTS, L.R.C.P., Lond., M.R.C.S.E., L.S.A., London.

In the November number of the "RECORD" for 1882, I reported a case of Interstitial Gestation which terminated fatally at the end of the second month, from spontaneous rupture of the sac; perhaps the following brief history of a case which ran through and beyond the full period of ordinary gestation may not be uninteresting.

Mrs. C., æt 35, a middle-sized, intelligent woman, with a healthy physique, who had been married many years, but had never had any family and had never miscarried, consulted me on the 4th June, 1885, suspecting that she was *enceinte;* catamenia (which, as a rule, were always pretty regular) ceased on the 4th March; all the usual signs of pregnancy were present, and with the exception of the abdomen being very much larger than is usual at so short an interval, there was nothing to indicate its being anything more than an ordinary case. I considered her to be pregnant, but that there might be a tumor of some kind in addition, and I advised her to wait patiently the course of events. I saw her from time to time, and she continued to increase in size, and the first week in August she felt fœtal movements. On the 4th October she again consulted me, having most unfortunately contracted syphilis, which yielded to Iodide of Potassium (she was not mercurialized); but she rapidly lost flesh, the abdomen increased greatly in size, but the "swelling dropped," repeated digital examinations failed to reach the os, nor could a sound be passed; but early in October fœtal movements could be distinctly felt and seen, and the fœtal heart heard. She suffered the first week in November from a sharp attack of subacute peritonitis, which left her very prostrate and very much emaciated, and she became subject to attacks of most acute pain which were only controlled by Hypodermic injections of Morphia, there had been for some time lacteal fluid in the mammæ, she also complained of "crackling in her inside like the crackling of parchment." I came to the conclusion that it was a case of Interstitial Tubal Gestation, and asked Mr. Alban Doran to see the case with me, which he kindly did on several occasions, on one of which he succeeded in reaching the os and finding the uterus empty, it was decided to wait until the ordinary nine months elapsed, and she was removed to the Samaritan Hospital, on the 17th February. Sir Spencer Wells kindly met us in consultation, and it was decided to operate as soon as a bad bed sore, which she unfortunately had, should be somewhat improved. The operation was performed on the 26th March, 1886, and on opening the abdominal cavity, a large tumor was exposed, with a shiny, smooth surface of a dark red color; it was tapped but neither fluid nor blood escaped. Fearing that the tumor might be a malignant growth, and as no fœtus could be felt through the anterior wall of the tumor, Mr. Doran, assisted by Dr. Bantock, cleared away adhesions, which were very intimate posteriorly; in so doing the transverse colon and sigmoid flexure were lacerated, and required suture. The cyst, when raised, burst on its right side, and

then the fœtus was seen and removed, a wire clamp was passed round the root or base of the tumor, and a drainage tube was passed into Douglas' pouch ; there was little or no hæmorrhage, but a considerable amount of shock, and the patient succumbed the following night. The uterus, placenta, and other parts removed are at present being dissected, and the result I hope to make known to to your readers at some not very remote period; but I may incidentally remark that the fœtus, a full grown and remarkably fine male child, was not in the least offensive or decomposed, but entire and in a very good state of preservation. There was no doubt about the pregnancy being tubul, and altogether the case was a very remarkable one amongst these fortunately rare cases. Whether an operation if performed earlier would have been more successful, what share the syphilis had in impairing the mother's health, and what was the cause of the peritoneal inflammation, are problems that require a good deal of solving. The length to which gestation extended, the remarkable state of preservation in which the infant was, and the very great state of emaciation to which the mother was reduced, she was quite a skeleton, are very remarkable features in this very remarkable case. I omitted to say that the specimen referred to in November, 1882, was sent to the museum of the Royal College of surgeons, and is, I believe, the only perfect specimen in that or any other museum.

LONDON, 60 Haries St. W., April, 1887.

GYNÆCOLOGICAL REPORT.

By E. H. TRENHOLME, M.D., C.M., B.C.L., Professor of Gynecology, Medical Faculty, University of Bishop's College, Montreal.

VICARIOUS MENSTRUATION.

A most interesting discussion aroused upon this subject has lately appeared in the *British Medical Journal.* Dr. Barnes read a paper upon the subject, which was marked by his usual ability, and in which he related a number of cases illustrative of the views generally held, and currently accepted as to the truth of vicarious menstruation.

Dr. Wilkes, who was present at the reading of the paper, by invitation of Dr. Barnes, made a remarkable address in reply to the views advanced, and expressed his adherence to views he had already advanced, as to the sure existence of vicarious menstruation. Dr. Wilkes said his scepticism as to the existence of an affection, long accepted and taught by lecturers and writers upon diseases of women, arose from personal investigation of the supposed cases, in every one of which he found that the positive assurance of patients and friends as to the periodicity of the bleeding was erroneous. This statement was followed up with an examination of the cases reported by authors, in which he brings before us their paucity as to numbers, and more liability as to fact. This quite startles one, but, nevertheless Dr. Wilkes' position seems well taken, and he can only be dislodged therefrom by the force of authentic and carefully reported cases. So far, he says *no one* has "given a straightforward and simple case of a girl bringing up blood every month, of the truth of which there could be no reason to doubt the accuracy." After referring to the view of some, that amenorrhœa is a substantive disease, he expresses his opinion that in an enormous majority of cases, it is a symptom and a consequence of disease elsewhere ; not only is the outward discharge wanting, but as the physiological process itself is in abeyance, there is no room for the process of so called vicarious menstruation. In conclusion, Dr. Wilkes says he does not deny the disturbance which often takes place during the menstrual period, and that an hysterical woman would spit up blood, or that an ulcer of the leg might put on a different action ; but that this is different from saying that the processes connected with menstruation take place through the leg.

ANTISEPTIC IRRIGATION.

Dr. Cushing has drawn the attention of the profession to the importance of vaginal irrigation in all operations upon the womb. He states that the vagina is a very hotbed for bacterial colonies, and that in a great many cases, even in the best society, an old and unnoticed gleet in the husband has given rise to a mild and forgotten gonorrhœa in the wife, so that gonocci and other pathogenic germs may abound in the vagina, ready to be carried into the uterus on the sound, or get into any abrasion or cut made by the surgeon. As the sublimate solution, which is the best for destroying the bacteria, does not keep well in water, it is best to prepare it fresh daily. For private practice, losenges, containing 7- 1-3 grs. of sublimate, combined with ammon. chlor., make a quart solution of 1-2000. For hospital use ʒ ij corrosive sublimate to ℥ i glycerine keeps well, and by mixing ʒ j of this solution with two quarts of water gives 1-2000.

GYNÆCOLOGICAL THERAPEUTICS.

Under this heading, Dr. Currie draws attention to the value of some of the means available for the relief of female diseases, and thinks that a very considerable portion of diseased conditions may be treated without the knife, and in place of divulsions, incising the neck, and intra-uterine applications, we should substitute a regimen of rest, diet, rubbing, exercise, etc., and only resort to surgical procedure when these means fail. The author then refers to laparotomy, and refers appprovingly to the actual cautery as a useful means of preventing sepsis and hemorrhage from the stump.

In hysterectomy the V shaped incision is approvingly spoken of, and the credit of the operation properly given to Schroeder, though the question of priority of the operation may be in doubt, inasmuch as Dr. Trenholme of this city suggested the operation some 12 years ago. Schroeder's advice to operate upon cancerous uteri and ovarii is perhaps open to question, in fact will not be accepted if the results following the operations on this side of the ocean are to guide us.

NEW THEORY OF MENSTRUATION.

Dr. Johnston, of Danville, Kentucky, regards menstruation as a result of a glandular function, and that the menstrual organ is the endometrium. He finds the coating of columnar epithelium in young girls devoid of *corpuscular development;* at 13th year there is a more elaborately developed columnar epithelium, and the beginning of a corpuscular layer; while at 20 there is an abundant corpuscular development, forming a thick endometrium with its endometrium in process of removal; while in a woman of 60 there was little endometrial structure, and almost complete absence of corpuscular element and total absence of epithelium. Dr. Sutton "of Liverpool" agrees with Dr. Johnston, that the epithelium of the tubes is not shed during menstruation. The facts thus established shew that the activity of the ovaries is co-equal with life, while that of the uterus is limited to the period between puberty and the climateric, and it is during this period only that uterine myoma can be developed.

These resources, though helpful, and doubtless correct as a general rule, yet fail to explain cases of menstruation where the fallopian tubes were impervious, and the uterine cavity was entirely concluded by the coalescence of the endometrium, as in a case reported some 2 years ago, by Dr. Trenholme, and uterus exhibited before the Medico-Chirurgical Society of this city.

Correspondence.

LETTER FROM NEW YORK.

NEW YORK, April, 1887.

DEAR RECORD,—Although there is no place in the world where Gynecology has reached such a high stage of perfection, yet for the general student, in this popular branch of our art, there is little chance here of advancing his studies, owing to the restrictions with which are surrounded the physicians of the various institutions where the diseases of women are treated. The staff receive you with the greatest courtesy, invite you to hysterectomies and ovariotomies, to operations for lacerated cervix, and for lacerated perineum, but to take you into the wards or out-patient rooms when they are diagnosing and treating ordinary cases, is a thing which they have not the power to do; it being against the rules to have more than two men in the room while a woman is being examined, and those two are the doctor and his own assistant. The best plan is to take out a special ticket at the Polyclinic, where, of course, there are no restrictions as to the number of students present. At the Woman's Hospital, corner 49th and 4th avenue, the operations take place at 2 p.m. sharp, nearly every day.

At this institution I spent a pleasant afternoon with old Dr. Emmett. There was a difficult case of vesico vaginal fistula to be operated upon, and as he was not feeling very well he handed the instruments over to his nephew, Dr. Baebe Emmett, while he made running commentaries on this and other cases. He told us that the whole of the urethra and all the lower surface of the bladder, as far as the openings of the ureters, had sloughed away and the bladder was protruding. He said that not one of these cases, of which he had seen a great many, was due to the use of the forceps; but rather to not using them, and that they only could occur in places where, there being no intelligent medical man, a woman was left for several days or a week with the fœtal head impacted in the pelvis. The moral he drew from the case was, never to delay applying the forceps if the head does not recede after each pain, for he said that he had known even half an hours pressure to cause sloughing.

In answer to a question I asked him, about hysteriotomy for cancer, he replied he was not favorable, as the disease nearly always returns,

He was much opposed to the cautery, because it leaves behind it a very lowly organized structure (scar tissue), which falls a ready prey to the disease. Besides removing the cervix almost never removed the whole disease.

He then took over the instruments, and operated in a few minutes on a case of lacerated perineum. The case was peculiar in that there was no laceration, it having been nicely closed up by some other surgeon, and because he called it a case of rectocele, although the operation was his well known and improved laceration operation. A little further modification is that he passes his needles from above downward, so as to draw the perineum up, and he takes care not to put any stitches through the skin of the labia, all the stitches being inside the vulva, except one or two in the stem of the Y.

I went down to Philadelphia to see Goodell perform forcible dilation of the uterus, but was disappointed, he having done one the day previous, which was doing well, as they all do. He is careful to keep the speculum filled with sublimate solution while using his dilator. Strangely enough he was just doing the same operation on the perineum that Emmett did the day before, and gave the same reasons for it.

Dr. Osler is making a great name in Philadelphia as a teacher and consultant, being frequently called in by his elder colleagues in difficult cases. I must now close,but will write again from London.

Yours truly,

A. Lapthorn Smith.

LONDON LETTER.

Dear Record,—I had only time to write a few lines from New York, and I omitted to mention that Emmett, in answer to my enquiry as to what he thought of

Alexander's Operation.

replied that he did not believe in it, for the reason that the benefit resulting from it could not be lasting, and, moreover, that any good obtained by it could be reached better by other means. When in Liverpool I made a point of interviewing Dr. Alexander. He is a medium-sized rather young looking man, peculiarly unaffected in manner, appearing more like a Canadian in this respect as well as in accent. He was engaged in getting up his statistics for a paper to be read at the International Congress, although he will not be there himself, but received me very cordially, and arranged to have a case to operate on, when I returned to Liverpool in July. He said he was more in favor of the operation than ever, one of the last cases he performed having been complicated with inguinal hernia, for the radical cure of which, as much as for the displacement of the uterus, he operated. He thinks the cause of disappointment in the hands of other operators is that they do not pull the ligament out far enough, it generally requiring to be shortened as much as four or five inches. He is always anxious to include the peritoneum in his ligature for closing together the pillars of the ring, the material for his ligature being silkworm gut. This he leaves in for several months if it does not cause any irritation, but removes it sooner otherwise. He does not leave any deep sutures in, but brings them right through the skin, and ties them on the surface.

I made the acquaintance of several gynecologists in Liverpool, but none of them had ever done Alexander's operation, nor did they seem to believe in it.

I spent an afternoon with Dr. Warren of the Infirmary, and the leading gynecologist there, who performed an exploratory incision, and subsequently drainage for removal of a purulent collection in the abdomen, resulting from the breaking down of a cancerous uterus. Speaking of ovarian and tubal disease, he said dilatation of the tubes was a very common condition, and in support of his statement he proceeded to pass Simpson's sound through the tubes of half a dozen women, right into the peritoneal cavity. This potency of the Fallopian tubes made clear to me several rather puzzling cases, in which I had, in my practice, passed the sound a distance of six or seven inches, much to my horror, as I thought at the time that the patients must have been pregnant, but they were not. I had merely, without knowing it, passed the sound through the Fallopian tube. Dr. Warren was opposed to the so frequent removal of the ovaries as was practiced by Tait and others. He referred to the case of Dr. Trulach, one of the leading practitioners of Liverpool, who was dismissed from the Hospital for having spayed a number of young girls, somewhat on the general principle, apparently, that girls were happier without ovaries than with them.

In London I found Gynecology in such a diffused condition, that one could not spend one's time very profitably in studying it there. It is

stuck on generally to the large hospitals, in some of which even the gynecologists are not allowed to operate, but must hand over their cases to the surgeons for operation. In Guy's, however, they are thinking of giving the Gynecologist some beds of his own. From general practitioners in several parts of England, I was sorry to learn that the profession there was generally in a bad way. The licensing bodies are all quarrelling among themselves, and at the same time they are turning out such an immense number of doctors, that there is no possibility of a quarter of them gaining a living.

The more intelligent and better off of the lower classes are attended free at the hospitals; the paupers are attended by the parish doctor, who receives about one thousand dollars a year for making about fifty or sixty visits and consultations a day, including medicine, to do which he employs unqualified assistants at less wages than he pays his coachman; so that the only way a young medical man has left in which to earn his living is to attend the scum of the working classes, who are about the lowest of the low, at a rate of about three pence to six pence a visit, including medicine. If he won't do that he may be so fortunate as to get a position as doctor on a steamship, at from twenty to forty dollars a month, while the voyage lasts, and paying his own expenses when she returns to port and until she sails again. The only other career open to him is to go as assistant to a practitioner, where he generally receives the same pay, but not nearly so much consideration as the doctor's servant man.

We should take a lesson in Canada, while there is yet time, from this condition of the profession in Great Britain, and by raising the standard of entrance and *increasing the number of years of classical study* required, before being even allowed to try for the matriculation examination, prevent a crowd of young men from joining the ranks of the profession, for whom an honorable living is not to be had. We who permit them to enter our ranks are not altogether blameless if the struggle for existence compels them sometimes to resort to methods which bring disgrace on us, as well as on them.

It is quite easy for a butcher's boy, or a scavenger even, to get crammed sufficiently in a year or two to pass our present entrance examination, but he would not be able to produce a certificate of nine years' studies, including physics and philosophy. It is all right to manufacture medical men by the hundred for the United States, where there is a demand for such, but they should be stamped "For export," while the number of those who are to practice in Canada should be kept within the limit of the requirements of the country.

I am leaving in a few days for Paris, where I am going to place myself under the instruction of Dr. Apistole, who has attained a world-wide celebrity through his remarkable treatment of fibroid tumours of the uterus by means of electricity. I shall then write again, endeavoring to give your readers some idea of the wonderful progress electricity has made during the last few years, as a therapeutical agent.

Yours truly,

A. LAPTHORN SMITH.

LONDON, April, 1887.

CORRECTION.

Editor CANADA MEDICAL RECORD.

DEAR SIRS:—Since writing my last letter from the Hub I have had the pleasure of witnessing an ovariotomy by Dr. Homans of Boston at St. Margaret's Hospital. I have never seen an ovariotomy more quickly and skilfully performed, and with less display and pretence. The result has been excellent. I find that I have been misinformed as to Dr. Homans' views of Listerism. I stated that he did not believe in Listerism, and have wronged him greatly. He is a firm believer in the use of antiseptics; and if any septic germs float around it is not from the want of the spray and every aseptic precaution.

J. L. F.

BOSTON, April, 1887.

Progress of Science.

CHRONIC PURULENT OTORRHŒA, ITS NATURE AND TREATMENT.

Condensed from a paper read before the Philadelphia County Medical Society.

BY CHARLES H. BURNETT, A.M., M.D.,
Professor of Otology in the Philadelphia Polyclinic, etc.

A chronic purulent or muco-purulent discharge from the ear is usually the result of inflammation of the mucous membrane of the middle ear, and, as such, implies the existence of a perforation in the membrana tympani, through which the purulent matter escapes into the external auditory canal. The perforation in the membrana tympani is usually in that part of the membrane below a line drawn nearly horizontally through the short process of the hammer—*i. e.*, the so-called membrana vibrans. In some rare but very important cases, the perforation is in the flaccid membrane,

or the membrane of Shrapnell, which lies above the short process of the malleus.

Chronic otorrhœa is both common and important, is met by all practitioners of medicine, and demands, therefore, their careful attention, both on account of the annoyance its presence gives the patient, and the danger to hearing and life which lurks in its persistence in the middle ear.

Chronic purulent otorrhœa generally begins in childhood. The original cause of otorrhœa is chiefly naso pharyngeal, and Eustachian tubal catarrh, induced by coryza, teething, and the acute exanthemata. Teething, by inducing a reflex irritation in the middle ear, leads practically to catarrhal inflammation of that cavity, perforation of the drum membrane, and the establishment of a chronic running. Purulent inflammation of the middle ear is almost invariably preceded by pain, and often constitutes the cause of earache in children.

Among the causes producing purulent otorrhœa in adults, must be named swimming and diving in cold water, plunging the head under cold water, washing the head and allowing it to dry in a draught of air, and also the use of cold water in the nasal douche, and the inhalation of various patent powders, snuffs, and fluid preparations advertised for the cure of nasal catarrh.

Tuberculosis of the lungs is also a cause of subacute and chronic purulent otorrhœa. This form is characterized by little or no pain, by its tendency to affect the posterior and upper parts of the drum membrane and cavity, and by its resentfulness of all forms of treatment but the mildest. It is supposed to be due to reflex inhibition of vasomotor power in the arterioles of the ear, supplied by the carotids. The irritation which thus acts reflexly is in the diseased lung. The irritation, passing by the pneumogastric to the sympathetic system in the neck, inhibits influence over the carotids. Passive dilatation ensues in this vascular tract, and those parts of the membrana tympani and middle ear supplied by it undergo passive congestion and inflammation of a low form, without much or any pain, the purulent matter ruptures the membrana, and an otorrhœa, chronic from the outset, is established.

The tendency to chronicity in all aural discharges is favored by the difficulty of keeping the ear clean, and by the improper treatment so often instituted. The exposure, too, of the mucous lining of the drum cavity to the atmosphere, by means of the perforation in the membrana, irritates the mucous membrane. and promotes further inflammation.

If chronic purulent discharge from the ear is associated with and kept up by chronic catarrh in the naso-pharynx and the nares, the rhinitis must receive due attention, or the discharge will not, without great difficulty, be checked.

The natural tendency of chronic purulent disease in the drum cavity is to impair the hearing.

After the destruction in the membrana, disorder in the ossicles, impairment of hearing, and the establishment of a chronic purulent otorrhœa, the disease may continue uneventfully on this plane for years.

These are the neglected cases tending to the development of granulations and polypi *upon the mucous membrane of the cavity of the drum.* As these form in the diseased ear, the discharge increases in quantity, and the hearing grows duller.

Inspection now reveals a polypus, or perhaps two, with distinct pedicles. Or, if these have not yet formed, granulations are seen, which more or less obscure a view of the drum membrane. Aural polypi vary in size, from a buckshot to a large marrowfat pea; or, if old, and sufficiently compressed by the auditory canal, they assume the shape of the latter, and finally extend from the meatus, after attaining a length of one and one-half to two inches.

Instead of the formation of polypi, the purulent disease may be more destructive, and produce death of the mucous-periosteal membrane in the drum cavity, and of the subjacent bone. The death of osseous tissue in the aural tract may take place in the tegmen tympani, just beneath the brain, or in the so-called antrum of the mastoid cells.

When the tendency of this disease has brought about necrosis in the regions named, the affection has assumed a most serious aspect, because a fatal issue may now be induced at any time by either an embolic process in the brain, the lungs, or the liver. Prior to this course, a fatal meningitis may be set up by an extension of the disease through the roof of the drum cavity, or through the fenestræ, and thus into the labyrinth and brain, or the necrotic disease having passed into the mastoid cells, the lateral or sigmoid sinus may be affected, and purulent phlebitis at this point aroused. A clot then may be formed in the sinus, pieces of which enter the circulation, and thus an embolic process established at some vital point.

In chronic otorrhœa, warnings of the unfavorable advance of the disease are given, by facial paralysis, violent ear pain, with fever and delirium, and inflammation within the mastoid cells.

Facial paralysis indicates an invasion at the upper and back part of the drum cavity, and meningitis may ensue. Inflammation of the mastoid cells is more likely to be followed by phlebitis of the lateral sinus and its consequences.

Cases of chronic otorrhœa with mastoid inflammation, and phlebitis of the lateral sinus, sometimes terminate fatally by embolism in the lung or liver, without any cerebral disease. Patients should be encouraged to have aural discharges stopped as soon as possible, whether acute or chronic. It is an injury to them to foster in their minds the idea that discharges will stop of themselves, or, if not, that they had better continue to run. Abnormal discharges from no other part of the body are allowed to run on disregarded, and, surely, discharges from the ear should not be, for they are as

amenable to proper treatment at those elsewhere, and if neglected, may become serious. From the deep and peculiar situation of the drum cavity, purulent discharges from this part of the head are likely to be retained, and to undergo decomposition. This favors continuation and extension of the disease, and the muco-periosteal nature of the tissue in which the affection has its seat renders death of the subjacent bone imminent, with consequent involvement of the cranial cavity. The patient, therefore, should demand of his physician an intelligent consideration of such a malady.

Treatment.—The first consideration in the treatment of chronic purulent otorrhœa is cleanliness and cleansing. Cleanliness is demanded in order to prevent decomposition of the discharge in the ear, and septic influences from such a nidus. Cleansing the ear is necessary to enable the surgeon to make a diagnosis of the condition of the fundus and the membrana, and in order to prepare the ear for treatment.

Cleansing the ear is best accomplished by the surgeon, and should very rarely, if ever, be entrusted to the patient. It is best effected by syringing with tepid water, either with or without a disinfectant, if the discharge is copious and tenacious. If, however, the discharge is neither copious nor thick, the ear can be cleansed by a small dossil of absorbent cotton on the cotton-holder. Failure in this procedure is often attributable to the use of too thick a pledget of cotton. This should not be more than five centimetres in diameter. If it is larger it gets wedged in the meatus or in the canal, the fundus is not reached, or only with difficulty, and after pushing, which is painful to the patient, abrasion of the canal, or even of the deeper parts of the fundus and the membrana, may ensue.

The syringe may be employed without illuminating the ear by the forehead mirror, but the proper and successful employment of cotton on the cotton-holder can be done only under the forehead mirror.

In infants and very young children, with very narrow meatuses, cleansing is most conveniently done by syringing with warm water, the return current from the ear being caught in a towel held beneath the auricle. After syringing, the water must be carefully mopped out of the fundus of the canal by absorbent cotton, in order to gain a view of the diseased parts, otherwise the refraction of the water will give a very distorted view of the objects seen through it.

Cleansing the middle ear is furthered by using some form of inflation of the tympanum.

After the first cleansing of the external auditory canal and its fundus, the surgeon should find out whether the perforation is above the so-called folds of the membrana flaccida or below the folds, in the membrana vibrans. Sometimes a perforation exists in both these portions of the membrana tympani at the same time ; but this is not common. It is highly important to determine in which of these parts of the drum membrane the perforation lies, since the treatment must be modified by the position of the perforation.

Let us first consider those cases in which the perforation is large and in the lower part of the membrana, the membrana vibrans. These are the most frequent.

Earache from acute inflammation in the tympanic cavity, in such chronic cases of purulent otorrhœa, must be combated by gentle warm-water syringing or irrigation, and in protecting the inflamed mucous membrane with insufflation of powdered boric acid. These insufflations and all others can be done either with the blow-tube, on the principle of the blow-pipe, or by the hand powder-blower.

In those cases of acute inflammation in chronic otorrhœa, with large perforations in the membrana, the pain can often be allayed by the use of instillations of cocaine, because the perforation in the membrana permits the entrance of the solution into the drum cavity, and its ready contact with the mucous membrane.

Cocaine solutions instilled into an ear with imperforate membrana tympani are important to quell pain in the ear. They also seem valueless even when the membrana contains a small perforation, because they still seem to fail to reach the inflamed mucous surface.

If coryza is present, as it is apt to be in these acute attacks in chronic otorrhœas, it, of course, must not be disregarded. The prognosis in these cases is favorable as to restoration to a relatively normal or healthy state, if the subject is in ordinary health.

It is in these cases of purulent otorrhœa with large perforations in the membrana tympani, that preference should be given to the so-called dry treatment. In this form of treatment very little water is used for cleansing, and only when the discharge is thick and copious, and hence not easily removed by absorbent cotton. The reason for this preference of dry treatment is that the use of water favors the continuance of the discharge in many cases, and promotes a tendency to the formation of granulations and polypi. If syringing the ear is to be done, it must be carried out by the surgeon, and not entrusted to the patient. After the ear is cleansed by either of these methods, some form of boric acid, finely powdered, should be employed by insufflation. This enters the tympanic cavity, and hence comes in direct contact with the inflamed mucous membrane. It remains there more readily than fluid preparations, and hence acts longer. The beneficial effects are due to the antiseptic properties of the boric acid, and to the protection the layer of powder gives to the mucous membrane.

If this dry treatment does not give entire satisfaction, as it may not or will not if granulations or ulcerations exist beyond the reach of the powder thus blown in, resort may be had to instillations of astringent and astiseptic solutions, as silver nitrate

—not less than forty grains to the fluid ounce of water; or carbolic acid solutions from three per cent. to five per cent. in strength. These are to be put in the ear after it is cleansed, and followed by a dressing of insufflated boric acid, either in simple or in compound powder.

In cases of chronic purulent discharge from the attic of the tympanic cavity, with perforation only in the membrana flaccida, the dry treatment cannot be relied upon, because of the smallness of such perforations, and the consequent inability of the surgeon to blow the powder into the diseased cavity. In these cases the treatment consists in the application of solutions to the attic, through the perforation, by means of the tympanic syringe. The long slender nozzle, six centimetres long by one millimetre in diameter, must be conveyed under illumination by the forehead mirror down the auditory canal to the seat of disease. I have found the best results to follow the use of injections of a three per cent. so ution of carbolic acid by this means, into the attic cavity of the tympanum after thorough cleansing of the attic by injections of hydrogen dioxide, which thoroughly removes all pus. They do not tolerate nitrate of silver. It is well to follow these applications by insufflations of boric acid into the fundus of the auditory canal. For, though they cannot reach the attic unless the perforation be large, they have an antiseptic effect about the perforation and the rest of outer surface of the membrana tympani and the fundus of the canal.

Cases of chronic purulent disease in the attic are difficult to treat, on account of the bad drainage from those parts above the ossicles,and because of the small perforation usually found in the membrana flaccida. They are also dangerous to the life of the patient, because the disease lies near the tegmen tympani, directly beneath the brain. Natural deficiencies in the bone at this point exist so frequently that the meninges and the mucous membrane of the roof of the drum cavity are often in apposition.

In order to facilitate better drainage of purulent secretions from the attic in chronic disease, and more efficient medication, especially by the insufflation of powders, Dr. Sexton has suggested, and frequently performed, when the membrana is largely destroyed, an operation for its removal, and then that of the malleus and incus, or their remnants. The fundus is then treated with a powder of salicylic acid and boric acid, until a dermoid cicatrization ensues. This operation is applicable to chronic attic disease, *without perforation of the membrana flaccida*, but with large destruction of the membrana vibrans, in which the diseased malleus and incus interfere with drainage of the attic, downward in to the atrium.

In any case of chronic purulent otorrhœa, so long as we can detect no lesion beyond impaired vibration in the ossicles, with defective hearing, as a consequence of the chronic disease in the mucous membrane, the cure of the affection may be considered as probable, excepting in tubercular cases far advanced in pulmonary disease. By curing the purulent disease of the mucous membrane, the growth of granulations and polypi, and the occurrence of necrosis and caries of the adjacent bone, are prevented.

If, however, the ear has not been treated, or improperly treated, granulations and polypi may be found, with impairment of the hearing. The granulations are best removed by touching them, and only them, with chromic acid, carefully conveyed to their surfaces on a small cotton tuft, not more than two millimetres in diameter, on the cotton holder, under perfect illumination of the canal and fundus by the forehead mirror.

If polypi, with distinct pedicles, have grown from the mucous surface of the middle ear, and extend into or from the perforation in the membrane, they must be extracted with the polypus snare, and their pedicles touched every day or two, until they disappear. These are entirely curable, and the discharge from the ear usually ceases after the removal of the polypus and the destruction of its roots, and the hearing improves. The removal of the polypus, without subsequent treatment and destruction of its pedicle, is useless.

Instead of this conservative, hypertrophic action on the part of the mucous membrane, in may slough, leaving a subjacent bone bare. The latter then dies, either superficially or in its profounder parts, and some of the evils I have sketched are experienced by the patient. In some cases of profound inflammation and ulceration of the mucous membrane of the drum cavity, denuded bone can be felt with a probe, and crumbs of bone are thrown off with the aural discharge. But with the improvement in the condition of the ear, these particles of dead bone cease to appear, and denuded bone can no longer be felt. In such cases the ear should be syringed once daily, by the surgeon, with tepid water, in which salt or potassium permanganate may be placed. Or the ear may be syringed with weak solution of corrosive sublimate, 1 : 1000, carbolic acid five per cent., or with undiluted hydrogen dioxide (Lehn & Fink's, or Schieffleins). This drug has the great advantage in breaking up and removing all pus, and of informing the surgeon when this is accomplished, by the cessation of foaming, which ensues as soon as there is no more pus, with which it makes the frothy reaction. Thereafter, the ear is to be dressed with the powder of boric acid already named. Cleanliness and antiseptics, with attention to the general condition, form the guiding motives in the treatment.

If sequestra form, they should be removed, if possible.

In many cases, indeed, I am inclined to say in most cases, of necrosis of the temporal bone from chronic aural purulency, operative interference is well-nigh useless. Unless it be the mastoid cortex, all other parts of the auro-temporal surface are extremely difficult to operate upon, and surgical

interference becomes a dangerous undertaking. Again, when the surgeon is consulted in cases of intracranial disease, or systemic septicæmia, arising from chronic purulent disease and necrosis in or about the ear, the patient is beyond aid. To trephine for cerebral abscess, which has resulted from chronic aural disease, is to operate on a moribund patient, and to hasten surely the fatal issue. The time to aid such a sufferer was when the chronic purulent otorrhœa could have been checked, and before it had induced necrosis of bone, or embolism. In my opinion, there never is a moment, after the cerebral abscess is formed, that an operation for its relief is justifiable, excepting, perhaps, in those instances in which a sinus can be found leading to it from the mastoid or squama. In regard to mastoid trephining, for so-called mastoiditis and periphlebitis of the lateral sinus, my opinion is much the same.

A chronic purulency in the tympanic cavity may gradually and painlessly affect the mastoid antrum, its cells, and its outer cortical as well as its inner wall, the latter being the outer wall of the lateral sinus. This diseased state in the furrow of the lateral sinus is of the most serious import, but an operation on the mastoid cortex cannot arrest its progress or remedy its effects. Too often, when pain in the region of the mastoid is felt, and other well-known symptoms of so-called mastoiditis arise, the pain is really due to inflammation in the lateral sinus, or deeper parts from such chronic disease in the bone, and not to matter pent up in the mastoid cells, which a perforation in the mastoid can relieve. I am forced to such conclusions, because fluid matter from the drum cavity and mastoid antrum can escape, in most cases, from the external ear. Also, because in many cases of pain in and about the mastoid, with symptoms which are supposed to justify trephining its outer cortex, the cavity has not been found filled with fluid matter seeking an escape, but with some inspissated pus at most; while periphlebitis in the lateral sinus has been discovered, having its origin from the neglected tympanic disease, which trephining is powerless to cure.

Even if the mastoid cortex and cavity are found diseased, an operation upon them will do no good if the lateral sinus is diseased, and perhaps the seat of a clot.

In many cases of tumefaction behind the ear, in painful acute inflammation in chronic cases, Wilde's incision does give great relief. And in some such cases where this incision has been followed by perforation of the bone, relief and apparent cure have followed, it has been because there was no disease in the inner mastoid wall and the lateral sinus. In such cases the local depletion gave the relief, and mastoid perforation was purely gratuitous. Hence, in acute cases of otitis media, great care should be taken not to resort precipitately to mastoid trepanation. In chronic cases it is of value in very few instances, and the indications for its employment are not well defined. In many cases the mastoid becomes œdematous, brawny, shining, sensitive to both deep and superficial pressure, and painful to the patient. These are often relieved by poulticing and leeching, without even Wildels incision. Sometimes, if let alone, they undergo speedy resolution. If the lateral sinus has not been invaded, there is no need of haste. If has been attacked, mastoid trephining will certainly not check it.

It must not be forgotten that many instances of pain and swelling about the mastoid are due to congestion and swelling in its mucous lining, and in that of the middle ear and mastoid antrum. The circulation both within and without the mastoid is then impeded, and swelling, œdema, and tenderness of its outer surface are the result. Hence the relief obtained sometimes by spontaneous resolution, or by artificial depletion over the cortex of the mastoid.—*Phil. Polyclinic.*

TREATMENT OF PNEUMONIA IN THE NEW YORK HOSPITALS.

Bellevue Hospital.

Immediately upon admission every patient under the charge of Prof. Alfred L. Loomis undergoes an examination for the determination of the following points:

1. The extent and location of pulmonary consolidation and amount of complicating pleurisy.

2. The temperature and condition of the heart as indicated by its rhythm, force, and amount of muscular element in the first sound.

3. The condition of the kidneys.

When the patient is admitted during the initial shock, full doses of morphia are administered hypodermically, and repeated with sufficient frequency to relieve pain, during the first three or four days, or until the consolidation is complete.

Every patient is placed in bed, clothed in an oil-silk, flannel-lined jacket, which is made to come close up around the neck and to extend well down on to the trunk, and is put upon a diet of milk, vichy, chicken soup, and beef-tea, the selection of food being somewhat affected by the limits of hospital dietary. This much is routine.

When consolidation is confined to a lower lobe, the cough, expectoration, and pain moderate, the temperature below 104° F., while the pulse is regular with a strong first sound of the heart, and the urine is normal, nothing further is done beyond keeping the bowels freely open by some mild cathartic, as pulv. glyc. co.

The general treatment is then purely expectant. The temperature and pulse, however, are taken every four hours and the urine examined daily.

When the temperature reaches 104° F., or more, fifteen to twenty grains of quinine are given

at a single dose. If at the end of six hours no reduction of temperature is produced, twenty grains are given in divided doses within an hour. As the drug used is "hospital quinine," these doses are possibly slightly larger than would be required in general practice. When they fail to reduce temperature equal parts of quinine and antipyrin are employed, but always in combination with some form of cardiac stimulant, as alcohol or caffeine. If the temperature is not affected by the second dose its use is not continued.

Indication for stimulants are found principally in the cardiac condition. Patients with consolidation at the apex, however, and alcoholic subjects are put upon stimulants from the first.

The cardiac stimulants used are alcohol, caffeine, digitalis, and ammonia, the first two being given with about equal frequency and for prolonged effect, while the others are used more for emergencies in the latter stages.

An irregular, uneven, intermittent pulse, or weak or absent first sound are indications for stimulants to be given p. r. n.

It is seldom found necessary to employ measures directed especially to the cough. When this is distressing, with little expectoration in the earlier stages, opium is employed to mitigate its severity but not to check it entirely ; later in the stage of resolution opium is avoided and carbonate of ammonia given in connection with infusion of serpentaria or wild cherry.

Pain is controlled early by opium and *large hot* poultices, later by poultices alone, if possible.

The earliest indications of renal complications are met by the ethers, infusion of digitalis, and nitroglycerine.

Sleeplessness is relieved by bromide and chloral (alone in robust patients), and with the addition of cardiac stimulants in alcoholic subjects.

Œdema is treated by dry cups freely applied over the entire chest, atropia hypodermatically, whiskey and digitalis internally, and the free inhalation of oxygen.

St. Luke's Hospital.

The treatment of pneumonia in Dr. Kinnicutt's wards in St. Luke's Hospital, during the past five years, has been wholly an expectant one. Absolute rest in bed in a *strictly* horizontal position, not only until defervescence occurs, but for several subsequent days, is a rule which is carefully observed in his service. The patients are rarely permitted to assume a sitting posture, even for the purpose of an examination. Several instances of sudden death from heart failure, in the period immediatety following defervescence, on the patient attempting to rise, have convinced him of the wisdom of a routine rule of this kind. Light flaxseed poultices or a layer of cotton-wool covered with oiled silk, applied over the affected area, have been found serviceable in promoting the comfort of the patient.

During the developing stage of the pneumonic process (the first three or four days), opium in small doses (morphine one-sixteenth to one-eighth grain given by the mouth or hypodermatically, two or three time in twenty-four hours) has proved of great service in controlling the symptoms of nervous shock which so frequently obtain at this stage of the disease, and in affording relief to the suffering of the patient. It has also seemed to combat, in a measure, the tendency to heart failure.

The employment of alcohol has been governed by the symptoms in individual cases. With the first indication of cardiac weakness, it has been the rule to institute its use in small doses and to watch carefully its effect. The pulse, the tongue, and the mental condition are accepted as guides for its continued use and for the amount to be given. Many cases have convalesced satisfactorily without its employment at any stage of the disease ; again, twelve or more ounces of brandy have been given in the twenty-four hours, with marked benefit and recovery. Its use in diminished doses during the first days of convalescence has often been found advisable.

Caffeine and digitalis have been used very uniformly as heart tonics, and Dr. Kinnicutt believes with benefit. During the past several months, strophanthus, in the form of the tincture (five drops, three or four times in the twenty-four hours), has been employed with excellent results. He now prefers it to all other cardiac tonics in this disease. Antipyretics have seldom been employed.

On the temperature reaching 105°, a single small dose of antipyrine, eight to twelve grains by the rectum, has been given and repeated if necessary.

Aside from his disbelief in the necessity of the general use of antipyretics in pneumonia, Dr. Kinnicutt is convinced of the intolerance of large doses of the group of carbon compounds in this disease.

Finally, the alimentation of the patient has received very careful attention ; the food has consisted of milk, in its raw state, or peptonized. The hospital records show the following satisfactory results under the above method of treatment.

Forty cases of acute labor pneumonia were treated in the wards from December 1, 1884, to, December 1, 1886. There were six deaths, 15 per cent. (excluding one which fairly should be disregarded, death occurring twelve hours after admission to hospital on the fifth day of the disease), all in complicated cases ; the complication being : (1) amyloid spleen, liver, and acute nephritis ; (2) chronic nephritis ; the disease), all in complicated cases ; the (3) endocardial aneurism, mitral stenosis, chronic nephritis ; (4) alcoholism ; (5) urethral stricture with retention of urine ; (6) uræmia and chronic nephritis. Serious complications existed in ten of

the cases which recovered. Double pneumonia was present in three of these.

If the nature of the symptoms points strongly toward the development of pneumonia, although it is not yet perfectly evident, Dr. Beverley Robinson avoids the use of arterial sedatives like aconite, and prefers to order a few doses of ammonia, a small amount of opium (Dover's powder preferably), and a flaxseed poultice over the affected side. When the pneumonia can be clearly recognized by physical exploration of the lungs, moderate doses of digitalis (fl. extr. ℥j), and from two to four ounces of brandy or whiskey in the twenty-four hours, are prescribed.

A sufficient quantity of milk given regularly every hour, with an egg-nog, or beef extract, morning and evening, is allowed. Flaxseed poultices, containing a small proportion of mustard, are continued as a local application, and are renewed once every three hours. To retain their heat and moisture, they are covered externally with gutta-percha tissue or oiled silk.

If the bowels are constipated at the beginning of the attack, or subsequently, a dose of calomel is ordered (5 grs.), followed in a few hours by a saline aperient (℥ ss–℥ J of Epsom salts). Whenever the patient is much prostrated, and the bowels remain torpid, a laxative enema is preferred. In cases where the bodily temperature rises above 103° Fah. in the axilla, five to ten grains of the phosphate of quinine by the mouth, every four hours, during the continuance of the period of active hyperpyrexia, are ordered. Whenever the heart shows symptoms of failure, either by extreme frequency, weakness, or irregularity of its beats, the amount of brandy or whiskey to be given is rapidly increased, and strong, black coffee is also ordered.

In a very grave case of double pneumonia treated during the past winter, and in which a cure followed, the disease was combated during the acute stage almost entirely with brandy and black coffee, a half ounce of one or the other being given alternately every half hour. (The brandy should be old and pure.) Later, dry champagne was substituted for the brandy.

Some years ago, Kerms mineral (oxsulphuret of antimony), in a vehicle of syrup of gum with water, was frequently ordered by Dr. Robinson every two or three hours, in order to promote expectoration. Although excellent results were obtained from the use of this drug, for no sufficient reasons it was abandoned, and never since resumed.

It the heart action remains feeble during the stage of resolution, although the fever has disappeared during several days, he has found convallaria majalis an excellent substitute for digitalis. It agrees with the stomach better than the latter drug, and often acts quite as well as a heart tonic.

In the convalescent period, when the lung remains impervious to air during a considerable time, he has found repeated fly-blisters over the affected side extremely beneficial in clearing up the local intra-pulmonary condition. At the same time that blisters are applied he orders small doses of belladonna, strychnine, and carbonate of ammonium in infusion of cinchona, repeated several times daily, so as to strengthen the heart's action, and tone up the general system. Whenever delirium is present, it is allayed with ice-bag to the head, or by the internal use of ether (in perles), or of the bromides. Venesection for the asphyxia accompanying a dilated and over-burdened right heart, is occasionally advisable, and when performed under favorable circumstances, has been found useful. In his experience, however, the evident indications for this little operation have rarely occurred. The main source of danger in pneumonia, as a rule, seems to pertain to rapid or sudden heart failure. This accident may be prevented in many instances by the internal administration of repeated and considerable doses of black coffee and alcoholic stimulants.—*N. Y. Medical Record.*

THE TREATMENT OF PNEUMONIA IN THE PHILADELPHIA HOSPITALS.

Hospital of the University of Pennsylvania.

Dr. Pepper reduces the initial high fever in cases of pneumonia in his wards (if, as unfortunatlye rarely happerns, the case has been admitted just after the onset) by antipyrin or by the external use of cold water. It was for this, accompanied with severe pain, that venesection was formerly used; and he still advises its use at this earliest stage if high fever returns promptly after reduction by the above remedies. They will often produce a favorable impression, however, with less risk. Throughout the disease the fever must be carefully watched and often requires to be promptly reduced. Sometimes large doses of quinia—as thirty or forty grains given in two doses at intervals of four hours—will do this; but antipyrin is so much more prompt and certain that he prefers using one of them, and especially antipyrin, for the occasional control of the hyperpyrexia,while giving continuously a moderate amount of quinia, say ten or twelve grains daily. Quinia meets several indications in pneumonia, and he nearly always gives it, adapting the dose to the grade of disease and special conditions of the patient. As the stomach must be very carefully guarded in pneumonia and everything avoided that might irritate it, it is often better to give quinia by the rectum.

He is more in the habit of using aconite than veratrum, but one or the other of these powerful and reliaflle arterial sedatives should be used during the early days of the attack, given in frequent and moderate doses so as to produce safely their physiological effect by lowering the pulse rate, relaxing the system and aiding in reduction

of fever. Later, if the pulse loses force or after the area of the disease has become defined, the indication for arterial sedatives has usually passed.

Not only must care be taken to avoid irritation of the stomach, but in many cases, especially in the early stage there is much gastro-hepatic congestion and irritation present, and here it is important to limit ourselves to relieving this by short courses of small doses of calomel with or without soda, using meanwhile quinia by the rectum to control fever. It is especially in these cases that aconite is preferable to veratrum on account of its tendency to irritate the stomach. After the disease is developed, ammonium carbonate is preferred to stimulate respiration and favor resolution. It is usually given in simple emulsion, and in doses of five grains every two or three hours for an adult.

The diet must be adapted carefully to the state of the stomach. It should be liguid throughout and for the first two or three days should be restricted, but after that may be more free and concentrated if well received. It is extremely important that the patient be not allowed to make any exertion. Regid rest must, indeed, be insisted upon, for pneumonia is one of the diseases in which sudden death is apt to occur from any improper effort, as even of rising to sit upon a commode by the bedside.

The indications for alcoholic stimulants are drawn from the state of the circulation and nervous system. Many cases do well without any stimulus from the beginning to end; but on the other hand the signs of cardiac failure or of failure of nervous force call for alcohol, which may be required to be given freely. Of course, it is to be adapted, as to amount and mode of administration, to the state of the stomach. In general, a layer of cotton or wool batting stitched inside of the merino undershirt, over the outside of which a layer of oiled silk is placed, is preferable to poultices. The latter must be made skilfully to be pleasant; they must be changed frequently, and unless this changing is done with great care, there are both fatigue and risk involved. Of course, the above remarks apply solely to croupous pneumonia.

Dr. Osler, in hospital practice, recognizes two groups of pneumonic patients—the alcoholic and the temperate. A majority of the former die in spite of all treatment; a majority of the latter get well with any or with no treatment. That the mortality from pneumonia in the large general hospitals uniformly above twenty-five per cent. is due to the fact that to them are admitted the debilitated paupers of the community, with systems undermined by exposere and drink, and in no state to combat an acute disease. Alcoholics with renal inadequacy rarely survive pneumonia.

When the disease is limited, the fever moderate and the pulse good, a dilute acid mixture es given with Dover's powder to allay the pain and the cough. Cotton wadding or, if the patient prefer, light poultices are applied to the affected side. Blisters are never used.

At the disease can neither be cut short nor essentially modified by any remedies we at present possess, in severe cases we have to watch and meet the tendencies to death.

First. Heart failure from engorgement of the right chambers, and the lesser circulation, indicated by cyanosis and urgent dyspnea. Free venesection can alone meet this danger, and should be performed on the first signs of cyanosis, with failing heart. Good results have followed the removal of from eighteen to twenty-five ounces of blood. It is often left too late, and to be efficacious should be dnne early. It is not always successful. Two cases bled this season died.

Second. The fever, against which quinine, antipyrin, and antefebrin are employed; but the action of antipyretics in pneumonia is more uncertain than in other acute fevers. Cold sponging and the cold pack are more effectual when the temperature becomes dangerously high.

Third. The increasing debility. systemic as well as cardiac, demands stimulation and careful feeding. A majority of the fatal cases die of progressive heart failure, against which alcohol is given freely. Digitalis is also employed, but the full tonic action of this medicine is rarely seen in the weak heart of fever. Camphor and strychnine are useful in this condition.

Of medicines, carbonate of ammonium is freely given. Opium is used to allay the early pain and to quiet the cough. Extensive bronchitis with liquid expectoration is a contraindication. Arterial sodatives are not much employed, but when the cases are seen early, aconite is sometimes given. In the mild cases they are not often needed, while in the more severe ones they may be positively injurious. Expectorants are rarely called for, and when used the ammonia and nux vomica fulfill the indications. A milk diet is given, varied as occasion arises.—*Phil. Med. News.*

INTUBATION OF THE LARYNX FOR OBSTRUCTIONS ARISING FROM INFLAMMATORY CONDITIONS.

Our readers are all, to some extent, familiar with the new device invented by Dr. Joseph O'Dwyer, of New-York, of introducing a metallic tube into the larynx and leaving it there to be self-sustaining any length of time necessary for the obstructive condition to subside.

Failures in tracheotomy led Dr. O'Dwyer to make a study of the possibility of introducing a tube in extreme cases, instead of opening the trachea below the seat of obstruction. Having a position in the N. Y. Foundling Hospital, which contains a large number of children, and affords frequent opportunity for examining the anatomy of

the larynx, and (after some progress in the construction of a tube for trying it in the living patient) he gradually worked out a practical instrument.

Five years ago, Dr. McEwen, of Glasgow, Scotland, was working upon a rubber tube to take the place of tracheotomy, but in his endeavor, the tube was not self-sustaining in the larynx, and would not permit the epiglottis to close down. A quarter of a century ago. M. Bouchut, of Paris, made a tube of metal which was employed in seven cases, but they all died. The Paris Academy of Medecine, under the lead of Trousseau, condemned the use of the tube and Bouchut, discouraged, discontinued his endeavors to perfect the instrument, and it went out of notice and out of memory until revived in connection with the discussion of O'Dwyer's tubes.

As at present put up by the instrument makers, there are five tubes, adapted to different ages from one year to twelve years of age. Larger tubes must be made to special order. There is in the case, a gag of new construction, an instrument for introducing the tube, and another for its extraction.

The manipulations are said to be easy and quick after practice, but difficult in unpractised hands. Dr. Jennings, of Detroit, is reported (in the *N. Y. Medical Record* for Nov. 11th, 1886, p. 645) to have failed altogether to get the tube into the larynx. It is doubtless a question of practice and manual skill. The successes reported are far in advance of anything ever experienced in tracheotomy. There are two obvious reasons for this. The first is that the parents of sick children will consent to the measure as soon as there are alarming symptoms; and the second is that the shock of a surgical operation is avoided. The age of the patient and his exhaustion, through long suffering and insufficient oxidation of the blood, render him especially susceptible to surgical shock.

The use of the instrument is being rapidly introduced; Dr. Waxham, of Chicago, having become early enthusiastic over his success, as published in the *Chicago Medical Journal and Examiner* and Dr. Cheatham, of Louisville, as published in the *American Practitioner and News* for Nov. 13, 1886 has also become enthusiastic in praise of the instrument.

Dr. David Prince, of Jacksonville, Illinois, sends us, and permits us to quote two successful cases of intubation occurring in his practice.

The first, on November 25th, *ult.*, in a three-year-old boy, a patient of Dr. Malone, suffering from diphteria for several days, the patch of vegetation being visible on the palate and in the pharynx. The difficulty of breathing had become alarming, but manipulation (under ether) dislodged a large quantity of exudation, improving the respiration. The final introduction of the tube rendered the respiration easy. In a short time the tube was coughed out and held from being swallowed by the string which had not been detached. No further alarming dyspnœa occurred, and the tube was not returned. Under the use of calomel in minute doses, quinine and alkaline vaporization, the child made a slow recovery, though the diphtheritic vegetation continued several days. The lungs escaped invasion. The case was on December 9th; one of membranous croup, there being no diphtheritic vegetation in sight.

A seven-year-old boy, a patient of Dr. Halsted, exhibited a gradually increasing dyspnœa, until breathing was labored and the vermilion border of the lips dusky. The introduction of the tube (under chloroform) afforded complete and permanent relief. The tube remained in place one hundred and six hours and at the expiration of this time it was removed (under chloroform) without return of dyspnœa.

The child could whisper. and could swallow both liquids and solids while the tube remained in the larynx

Dr. Princé thinks that operators who have not become skilled through practice, should always make the attempt to intubate with the patient in a state of anæsthesia. Fright is avoided in this way; all struggling and consequent alarm of the patient's friends are also avoided. The operator himself is likely to be more deliberate, and to have less to distract him than with the child in the waking state.

Dr. Prince counts his tracheotomies for inflammatory obstructions by the number of his thumbs and fingers, and his failures in the same way. Some of the cases have died of shock, some have been relieved for a day, but all died within four days from the time of the operation.

It is generally conceded that in those cases in which the small bronchial tubes and the alveoli become invaded, death is inevitable. In these cases, intubation, relieving the laryngeal dyspnœa will produce temporary relief and prolong life, but the subsequent invasion of the lungs will produce a secondary pulmonary dyspnœa beyond the reach of any remedy. The case is the same with tracheotomy.

Among the references to the literature of the subject are the following:

O'Dwyer. Intubation of the larynx. *Medical Record.* Vol. XXIX, No. 23, p. 641.

O'Dwyer. Ditto. Vol. XXIX, No. 15, p. 410.

M. Bouchut, 1858. A paper read before the Paris Academy of Medicine.

Dr. Cheetham. *American Practitioner and News*, Nov. 13, 1886, page 321.

Dr. Waxham. *Chicago Medical Journal and Examiner*, March, 1886, p. 193.

Abstract of the same papers in *Pediatrics* April, 1886, p. 215.

Dr. J. Lewis Smith. *American Journal of the Medical Sciences*, Oct., 1886, p. 409.

Dr. Northrup. *Medical Record*, Vol. XXX, No. 24, p. 645.

Dr. Fletcher Inglas. *Journal of the American Medical Association*, July 19, 1886.—*St. Louis Med. and Sur. Journal.*

Feb. 1887.

PRECOCIOUS CHILDREN.

SOME HINTS ON THEIR TRAINING AND EDUCATION.

The care and training of a precocious child are among the most vital duties that fall to parental oversight. It might be said that undue precocity in a child is a misfortune, not only to the parents, but more especially to the child, whose very brilliancy is often a cause for keen suffering. What is a precocious child? We should say that he is one whose mental activities are prematurely developed, whose nervous susceptibilities are so sensitive, that the slightest mental excitement finds expression in language that surprises us, whose sayings and doings leap far ahead of the average child, and whose conclusions are reached without the ordinary exercise of mental strain or systematic application.

The precocious child is constantly saying things so epigrammatic and brilliant as to call out the wonder of admiring parents and relations; and oftentimes these strange unnatural utterances are made the subject of remark in the presence of the child, and some newpapers often devote a column to this bright and abnormal child-talk. Nothing could be more harmful than such encouragement of a condition that is out of all harmony with healthful mental and physical growth.

As a rule, the precocious child is of a strumous or scrofulous diathesis, with a fair, brilliant complexion, blue eyes, and golden hair, beautiful to look upon according to popular standards. He is delicately sensitive to mental impressions, and alive to the conversation of persons much older than he. He generally goes on in his unique career, outstripping his brothers and sisters, as well as his schoolmates, in the committing of tasks at school, as well as in the reading of books far beyond their comprehension.

This generally goes on until the age of puberty, when he begins to falter. The hectic flush is seen upon the fair cheek, the eye becomes more brilliant, and the finer and the spiritual elements come out with almost supernatural intensity. By and by a slight cough arrests the attention; and, before the fond parent is aware, phthisis tuberculosis has laid the foundation for premature death.

Now, what shall be done to save such children, and make them develop into healthy men and women?

First, we would say, *Let them severely alone.* By this we mean, do not encourage the precocious development by pushing the child ahead, and showing the foolish weakness of exhibiting the child to visitors, or displaying him at the performances of Sunday-school concerts or public-school exhibitions. We always pity the poor victims of such scenes, who come before audiences, and recite standard poems or sing *cavatinas,* to astonished crowds in heated rooms, amid the glare of gas-lights, and dressed in tawdry finery, irrespective of the climate or weather.

We say we pity such children; and, when we look upon their pale faces and attenuated legs, we wish we had the power to send them home and put them to bed.

Second, be simple with such children; keep them young, and encourage them to talk child-talk, to read child-books, and to play with other children. Do not let them remain in the house in company with the older folk, when the bright sun is shining, and the other children are romping upon the green with all the glorious freedom of childhood.

We recall the case of a little boy who, at eight years of age, would crawl behind the sofa or under the table, and read *Paradise Lost* and the Waverley novels. The fond mother told of the incident with maternal pride. Alas! the dear boy was under the sod at twelve. The precocious child, whose brain is in a state of "super-excitation," must not be subjected to the discipline of the public school. Such children do not work well in a system so full of curbs and checks, so beset with "marking," and with rewards and punishments. The conscience of these children is usually morbidly acute, and the suffering occasioned by the exactions of marking and other tests for promotion is often painfully injurious. A private instructor or a select school, where there can be more elasticity in the working of the machinery, and where the child can be dealt with as an individual, is far better.

Of paramount importance is the physical training of the precocious child. From the very nature of the case, all undue excitement must be avoided. The full quota of sleep must be insisted upon. No late hours should be allowed, full of the amusements that are such a strain upon the nervous system. We have heard of a little precocious miss of eight summers, who, besides attending the public school, "takes lessons" upon the piano, goes to a dancing school, gives and attends children's parties, and who very often is not in her bed until ten o'clock at night. What a foundation for that child's future is being laid! The diet should be of the simplest character, consisting of food containing all the elements of nutrition, like milk, bread, and soups. Confections, condiments, and fancy dishes should never be set before children. Give fresh air in abundance, and insure the child to go out of doors in all kinds of weather.

By following the general plan which has been outlined, we think the precocious child can be carried safely over the critical line that marks the beginning of manhood and womanhood, and secure a healthful development that will serve a long lifetime.

We have not time here to touch upon the form of precocity found in the gamins of our great cities. This class of humanity is an enigma to the philanthropist and the maturity and adroitness of the wickedness attained by the newsboys, the bootblacks, and the vagabonds, are indeed a study. Our suggestions have reference to the precocious child as found in good families, and under favoring circumstances.—*Popular Science News.*

CONGENITAL HEREDITARY ATONIC DYSPEPSIA.

During a practice of twenty years, I have prescribed Lactopeptine to patients of all ages, and have never been disappointed in its action when indicated. But I desire to speak in particular of its action in a case of congenital hereditary atonic dyspepsia in an infant, to whom I began to administer this remedy on the third day after birth. Mrs. H. L. S., Langside, Miss., was delivered of a male child, in whom there were manifested well marked symptoms of atonic dyspepsia. The mother had been a victim of dyspepsia from girlhood, and had inherited the malady from her mother.

The infant was put to the breast a few hours after birth, and nursed readily; but almost immediately rejected the milk. Repeated trials all resulted in vomiting, followed by exhaustion. Other articles of food were tried, including cow's milk, etc., without improvement. The child was in great danger of starvation. On the third day, I began the administration of Lactopeptine. The effect was immediate and almost miraculous. I ordered one-sixteenth of the adult dose to be dissolved in about two ounces of breast milk (drawn from a robust, healthy wet-nurse) and administered every two and a half hours. There was no more rejection of milk—except the usual vomiting of curdled milk, to relieve the crowded state of the stomach, which occurred occasionally, after the first ten days. Condensed milk cow's milk (properly diluted and sweetened), Mellin's food, boiled bread (pap), were, after a while, substituted for breast milk, but always with Lactopeptine. A steady improvement was manifest from the beginning, and kept up during the first dentition, which process was gone through with in a most satisfactory manner. No untoward diarrhœa or intestinal disturbance characterize this period, and, at ten months, the child was virtually cured of its dyspepsia, and could eat and digest ordinary food, such as children of that age may do in good health.

The parents of the child believe firmly (as I do) that Lactopeptine saved their infant. In cholera infantum, in diarrhœa, and in all of the disturbances of the alimentary canal, during dentition and early infant life, I find Lactopeptine an ever-effective and reliable remedy. In adult dyspepsia all are now familiar with its beneficial effects; but I should be glad if the profession would be induced to try it in the vomitings, diarrhœas and dyspepsias of infancy. I recall several babies whose lives I believe I could have saved, had I known, ten years ago, what I do now of the ready adaptability of Lactopeptine to infants) ailments.—R. WALKERS BEERS, M. D., in the *Medical Brief*.

Angola, La.

WARTS.

It is now fairly established that the common wart, which is so unsightly and often proliferous on the hands and face, can be easily removed by small doses of sulphate magnesia taken internally. M. Colrat, of Lyons, has drawn attention to this extraordinary fact. Several children treated with three-grain doses of Epsom salts, morning and evening, were promptly cured. M. Aubers cites the case of a woman whose face was disfigured by these excrescences, and who was cured in a month by a dram and a half of magnesia taken daily. Another medical man reports a case of very large warts, which disappeared in a fortnight, from the daily administration of ten grains of the salts.—*The Medical Press.*

A NEW TREATMENT OF GONORRHŒA.

Castallan, of St. Mandrier Hospital, starting with the view, now popularly entertained, that gonorrhœal urethitis is a parasitic disease, and being led by observation to believe that the microbe can only live in an acid medium; finding, moreover, that in this disease the discharge is, as a rule, acid, proposes to treat gonorrhœa in the acute stages by urethral injections of sodic bicarbonate, three or four injections being made daily of a one per cent. solution. For this treatment, which is but a logical interference from the premises, he claims remarkable success, although the cases on which it has been tried in St. Mandrier, as yet, number only a dozen. The injections of bicarbonate sodium are commenced as soon as the discharge appears, or the patient comes under observation; the urethal secretion is tested every day with litmus-paper, and the injection is kept up till the discharge becomes alkaline or neutral. For internal treatment the patient is given flaxseed tea, with occasional doses of bromide, if there seems to be any indication for the sedative effects of this salt. His conclusions are as follows:

1. The urethral pus in the first stages of the disease is generally, if not invariably, acid; this acidity is quite pronounced.

2. The treatment by bicarborate of sodium rapidly lessens the discharge; it also rapidly diminishes or removes the pain in micturition.

3. In old urethrites, and those which have been treated by the usual injections, it speedily brings about a cure.—*Boston Medical and Surgical Journal.*

THE TREATMENT OF RHEUMATISM IN THE HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

Dr. Osler employs in mild cases, with only one or two joints involved, and the temperature not above 102° F., the citrate of potash in ʒ ss doses every four hours. If there is much pain and the patient is restless, Dover's powder grs. x at night. In more severe attacks, with polyarthritis, and fever above 103°, he orders salicylate of sodium grs. xv every two hours, with a similar quantity of citrate of potash. The important influence of the

salicylate is believed to be in the reduction of the pain and fever. It is not thought to have much influence in lessening the duration of disease; and, on the other hand, when pushed for many days and in large doses, it is thought directly to favor the occurrence of relapse. Hence, as soon as the pain is relieved, the amount of the salt is reduced, and it is stopped as soon as possible. It does not probably influence, one way or the other, the occurrence of endocarditis. When the temperature is above 103. 5° antipyrin, grs. xx, is ordered. With fever of 105° the cold pack is employed. Lemonade and carbonated waters are allowed freely. An unstimulating liquid diet is given. Blankets are preferred for the bedding of the patient. Special care is enjoined in changing the clothing, and a wad of cotton-wool is placed over the front of the chest, The joints are wrapped in cotton-wool, or when very painful in spongiopiline, or flannel, soaked in Fuller's lotion (hot) (Liquor Opii Sedativus, ℥ j; Potass. Bicarb., ʒ iv; Glycerin., ℥ ij; Aquæ, ℥ ix). If the salicylate and the local application fail, as they sometimes do, to relieve pain, opium is freely given. During convalescence iron and tonic doses of quinine are ordered.—*Medical News.*

WHAT CAUSES WEAK AND TIRED EYES.

Eyes are made to see with, and they are so constructed naturally that they perform this function without effort and without labor. In its passive or quiescent state the eye is an instrument, as the opticians say of their lenses, "corrected and adjusted for distance," and it consequently images to the brain all that is within the field of vision without strain or effort. When a person fixes his eyes upon a distant object, and looks steadily at it for any great length of time, the organ itself does not tire of seeing, but the muscles which control their movements and hold the balls fixed tire of the strain thus imposed, just as any other voluntary muscle tires of being held rigidly in one position or engaged in one act for any considerable period. The visual apparatus would continue to see and report to the brain for an indefinite time, did these directing agents not tire of their task.

But while this is true of vision at a distance, it does not hold good of objects held very close to the eyes. In this case the muscles are again the seat of weariness, but from another cause. The balls must not be converged, and the focusing apparatus continuously readjusted for near distances. All this must be accomplished by muscular action. A person cannot hold his arm straight out from his body for an indefinite time; it will go down in spite of his will, after the expiration of a certain period, varying according to strength, practice, etc. So it is with the muscles which perform the complicated action of adjusting the focal distance of the eyes in the observation of very near objects. They perform the functions when ordered, and maintain their action for a certain limited space of time, but they soon weary and demand rest, which they get by relaxing. The moment that relaxation occurs the proper visual focus is destroyed, and can only be restored by a readjustment, which means a fresh demand upon the already fatigued focusing muscles.

Weakened and tired eyes, therefore, result from overworked or defective adjusting muscles, and not from the "seeing portion" of the apparatus, or the retina, which does not tire. This enables us to formulate the maxim that whenever an eye sees perfectly for one moment of time, it is almost positive proof that there is no organic disease of the visual apparatus proper. We may add that the condition of vision, known as "weak" or "tired eyes," is nearly always the result of farsightedness, which necessitates constant and excessive action on the part of the adjusting muscles to accommodate the organs to the vision of things near to them. The treatment of this condition, therefore, must be addressed to the muscles, and in cases of farsightedness the selection of proper glasses is the only thing to do. —*St. Louis Med. and Sur. Journal.*

ECZEMATOUS ULCERATION OF THE CORNEA; ECZEMA OF EAR AND SCALP; DIAGNOSIS AND TREATMENT.

Children are particularly liable to acute and chronic eczema of the face, scalp and ears, and the eruption on the surrounding skin is almost certain to excite ulceration of the cornea of one or both eyes. The conjunctiva, being continuous with the skin, sympathizes very intimately with any irritation thereof, and is consequently subject to the same eruptions. Thus when an eczematous eruption reaches close to the margins of the lids the conjunctiva becomes intensely red, and is soon itself invaded by the eczema, and the appearance of the disease in that part of the conjunctiva which covers the cornea is immediately followed by ulceration of the latter. These ulcers are frequently multiple and are always the cause of great suffering, being attended with profuse lachrymation and extreme photophobia. When the lids are forcibly separated tears gush out, and the little patient screams with agony caused by light. This condition is called eczematous keratitis or eczematous ulceration of the cornea. It is frequently most persistent and difficult to manage, but the prognosis is always favorable.

Eczema of the scalp is quite common, particularly in the neighborhood of the auricles, and often extends to them, covering one or both ears. The disease, while painful and unsightly, is by no means dangerous, except in its relation to the eyes, as explained above.

In the treatment the *only thing* to be used in the eye is a solution of atropine, from 1 to 4 grains to the ounce of water, according to the age of the patient. It should be dropped into the eye from three to five times a day, and to have any effect,

must be gotten well into it. The child's head must be firmly held, and the lids forcibly separated before the attempt to apply the remedy is made.

The treatment of the surrounding skin, or of the disease itself, is not so simple a matter. The nature of eczema is to extend in one direction while drying up in another, thus giving at one and the same time fresh and old eruptions, the first being covered with moisture and the latter with scabs or scales. The condition determines the treatment of the part. The first thing to be done is to thoroughly clean the whole surface. Where the eruption has extended to the scalp the hair must be closely cut away. All dry crusts that can, without using too much force and exciting too much pain and bleeding, must be removed. The whole surface must be brushed over with a strong solution of nitrate of silver (from 20 to 40 grains to the ounce of water). The silver solution must be applied freely, the brush being carried several times over every portion of the surface. The caustic is more particularly indicated in the moist or fresh stage, but the areas of moisture and dryness are so interwoven that it is best to go over the entire affected surface. The caustic application must be followed by one of oxide of zinc ointment (made with vaselin), which should be gently but thoroughly applied and rubbed in. The caustic should be applied but once daily, but the ointment should be repeated at least thrice within the same period. If properly applied the latter soon saturates the crusts which it was impossible to remove at first, softens them up and loosens them, so that they will separate and drop off spontaneously, and will not reform. When the moisture has disappeared the caustic application must be discontinued, but the ointment must be kept up until the skin is entirely healed. As the disease leaves the skin the ulcerations on the cornea disappear. When this occurs the use of the atropine solution should, of course, cease. If there be any otorrhœa it must be treated in the usual way, and due attention must be paid to the nourishment of the patient under all circumstances. The diseased skin must not be covered. It should be left open to the free contact of the air at all points. So far as I can now remember this method of treatment has been uniformly and invariably successful in my hands.—*St. Louis Med. and Sur. Journal*

SOME SURGICAL HINTS.

Prof. John Chiene, in an admirable series of practical notes on every day surgery, makes the following suggestions in the *Edinburgh Medical Journal:*

In wounds of the face the best stitch to make is horse hair. Unless the wound is of considerable size no form of drainage is necessary. The best dressing is the pad of salicylic cotton wool or corrosive wool, fixed in position with flexible collodion. The introduction of the sharp spoon into the surgical practice has greatly simplified the treatment of lupus. In the use of the sharp spoon special care must be taken to scrape away the raised edges of the lupoid ulcer, as it is here that the pathological change is advancing. This is best done by scraping from the sound skin toward the centre of the ulcer. After the new formation is completely removed, the best application is a powder, which has been introduced into the surgical practice by Dr. Lucas Championnier, of Paris. It consists of light carbonate of magnesia, which has been impregnated with vapor of eucalyptus, powdered benzoin and iodoform in equal quantities.

In a reduction of a dislocation of the lower jaw, the patient should be seated on a low stool before the surgeon. In this way the surgeon gets sufficient leverage, standing above the patient, and the reduction of the dislocation is simplified.

In the division of a tight frænum of the tongue, when the child is tongue-tied, care must be taken not to use the scissors too freely. All that is necessary is, standing behind the patient, to nick the anterior edge of the frænum with the scissors, and to tear with the finger nail the remainder of the band. In this way hemorrhage which is apt to be troublesome is prevented. In the removal of an elongated uvula after you have grasped the apex of the uvula it is to be drawn forward and, rendered tense before division. If it is simply grasped and attempt made to divide it in its normal position, it is not an easy matter to effect the object desired. When it is rendered tense, the operation is a very simple one.—*New Eng. Medical Monthly.*

Dr. Livezey writes: "While wintering in Florida I met with my annual patient, a young lady of twenty-eight, from Chicago, who was sent hither three or four years ago in order to pass out into the "spirit land" comfortably, who now being troubled with poor appetite, a slight but distressing nausea, great debility, irregular menstruation, excessive cardiac action on the least exertion, etc. I ordered 1 oz. bottle of Lactopeptine of the N.Y. Pharmacal Association's manufacture, and she improved at once. Soon after she met a lady friend, who told her she ought to take Lactopeptine, stating what wonders it had done her, who was troubled "just the same way" (of course). "Why bless me," said my patient, "that is just what my doctor prescribed for me, I am doing nicely." By the time she finished the small vial she declared she never felt better in her life, her appetite being regular, and everything O.K.

N.B.—She has taken since Lactopeptine, Elixir Calisaya, Iron and Bismuth, with excellent results, —*The Medical Summary.*

CONIUM FOR SLEEPLESSNESS.

Drachm doses of fluid extract of conium allay and often cure sleeplessness, and are useful in chorea, spasm of paralyzed limbs, and general irritation.—*Medical World.*

PSOAS ABSCESS; WHEN AND HOW TO OPEN IT.

At a recent meeting of the British Medical Association, Mr. Edmund Owen read a paper on the above subject. Mr. Owen said there was no disease the treatment of which had derived a greater impetus from the introduction of antiseptics than psoas abscess. By antiseptics he did not mean the use of the spray. The spray was now cooling down in more senses than one, and the surgeon did not now have to look through a cloud of carbolic vapor at his patient. By the use of antiseptics he meant antiseptics as used by the great masters in surgery, whether by Tait, Gamgee, Savory, or Lister. Twenty years ago every surgeon preferred to leave a psoas abscess alone, so long as it remained unopened. Stanley, writing forty years ago, said psoas abscess might disappear. Could it? Mr. Owen said that in an extensive out-patient experience, extending over years, he had only seen one case in which, after a fusiform tumor had been detected ascending along the iliac fossa, he had seen it disappear. Aspiration was useless, for it refilled. When evacuation of the abscess was performed, it should be done thoroughly, and no useless temporizing measures made use of. During delay the pus would be burrowing out for itself an extensive ramifying cavity. A free anterior and posterior opening should be made, and the wound thoroughly drained. The sac should be washed out with a warm antiseptic lotion, and a drainage tube the size of a cedar pencil passed through. The wound should be covered with sublimate gauze, then some oakum placed over it, and the dressings changed as seldom as possible. He had employed as the antiseptic lotion a warm solution of corrosive sublimate (1 in 1,000). He should, however, in future, discard the use of the sublimate, as he had had a case which died in four hours with black urine, due, he believed, to the absorption of the sublimate. Mr. Owen, in concluding, summed up his conclusions as follows:

1. Spontaneous absorption of psoas abscess is impracticable. Sooner or later it must be evacuated, either by nature or art, and the advantage is on the side of art.

2. The sac should be opened both in front and at the back, and irrigated. For a small abscess a single opening at the back might suffice.

3. Antiseptics should be employed.

4. The operator should bear in mind that pus might collect on the opposite side after evacuation of the abscess. If any rise of temperature take place, a second abscess should be suspected, and if found, evacuated at once. Bilateral abscesses should be attacked simultaneously, as their cavities frequently communicate. In reply to a query from a member as to the source of his method, Mr. Owen replied that was neither English, French, Scotch, nor Italian, but Welsh, thereby signifying that the idea was his own, and that he had not borrowed it from any one.—*New York Medical Record.*

TREATMENT OF ACUTE TONSILLITIS.

Dr. John Brown states, in the *British Medical Journal*, that it is a rare event for suppuration to occur in acute tonsillitis, if treated early with the following mixture:

℞.—Sodii salicylat..... ... . ʒ iss.
Potass. bicarb ..... ʒ iss.
Tinct. aconit ....m xl.
Liq. opii sed..... ʒ ss.
Sp. chloroform..... ʒ ii.
Aquæ, q. s. ut ft .....f℥ viij.—M.

Sig.—One to two ounces every two or three hours for the first thirty-six hours.—*Memphis Medical Monthly.*

A RAPID METHOD IN THE TREATMENT OF FRACTURES.

Dr. von Donhoff, of Louisville, thus describes a rapid method of treating fractures:

"1. Strips of sole Leather or gutta percha (tin will answer also) of suitable breadth and length being at hand, these are immersed in hot water and adjusted, by means of a roller, to the site of the fracture, previously reduced and properly swathed in cotton wool; the latter should be secured in position by a few turns about it with sewing thread. [Anæsthesia is a *sine qua non* to the proper manifestation and reduction of fractures.]

"2. If no suggestive incident intervene, such as shortening, angularity, or great uneasiness and pain, the *first* dressing, in cases of fracture of the shaft of long bones, should not be removed until the tenth day, but should never be permitted to remain longer than the sixth day in similar injuries of joints.

"3. On the fourteenth to the twentieth day, barring cases in which untoward diathetic or local influences have been demonstrated to exist, it will be found that the fragments are fixed, and that the dressing may be dispensed with altogether, except in fractures involving joints; in these the splints, properly stitched together, should be readjusted on going to bed, in order that the unconscious and possibly violent movements of the patient may not prove disastrous.

"4. Gentle, passive motion of fractured joints should be begun at least as early as the sixth day after the first dressing, and practiced every second day thereafter until the fourteenth, increasing the degree of motion as may be suggested by the judgment of the surgeon. After this date, the dressing being left off, the matter of moving the limb may be relegated to the inclination of the patient, unless he be too timid, when he may safely be encouraged to handle light objects and practice normal motions of the limb.

"5. The average duration of treatment need not exceed twenty-eight days, under ordinary circumstances.

"The above rules of practice have proven equally reliable in the treatment of compound fractures produced, in osteotomies done for the correction of deformities near the ends or in the continuity of long bones.

"6. The posture of the limb should be that best adapted to muscular equipoise—straight, or in an obtuse angle."—*American Medical Digest.*

CHLOROFORM IN LABOR.

At the last meeting of the State Medical Society of New-York, Dr. Fordyce Barker read a paper entitled, "Is the danger from post-partum hæmorrhage increased by the use of anæsthetics during parturition?" This subject is of great practical importance, and Dr. Barker has brought the treasures of a large and successful experience to its elucidation. His paper is eminently practical, and will secure a wide reading, and will, we doubt not, lead to the more frequent employment of anæsthetics in labor. Dr. Barker regards chloroform as the best and safest anæsthetic in obstetrics; since 1850 he has not used ether. He presents strong arguments for this selection. He has never been able to find any statistical evidence in proof of the statement constantly made in obstetric literature that anæsthetics increase the danger of post-partum hæmorrhage. He expresses the firm conviction that no woman under the care of a watchful, prudent, and competent obstetrician ever ought to die from post-partum hæmorrhage, due solely to uterine inertia or ataxy. He also makes the important statement that uterine inertia, the fountain of post-partum hæmorrhage, is often but another name for uterine exhaustion, and this is certainly much less liable to occur when the nerve force and vital powers have been saved by the use of an anesthetic. While admitting that chloroform, in some cases, prolongs labor, and that uterine exhaustion often is the result of prolonged labor, he is satisfied that this apparent objection is more than counterbalanced by the good obtained by its use. As the result of his experience, he asserts that chloroform shortens labor in a greater proportion of cases than it retards it.

"He is certain that it does in all those cases where the pains are diminished or suspended by extreme sensitiveness and fear of pain, by vivid moral impressions of hysteria, or by pains resulting from the coincidence of some malady, either existing antecedent to, or appearing during labor, such as rheumatism of the uterus or other muscular tissues, or sharp pains in the back or abdomen distinct from the pains from uterine contractions, gripings in the intestines, or the cramps which are occasionally produced by the pressure of the child's head on the sacral nerves; and, finally, in all those cases where inefficient uterine action results from loss of sleep and extreme exhaustion from a prolonged first stage; and in many cases where the labor is retarded by rigidity of the os uteri or perineum."

He has attended a number of patients who in previous confinements had alarming post-partum hæmorrhages, though taking no anæsthetic, who have escaped this accident in labors in which chloroform was used. A peculiar idiosyncrasy, or former tendency to hæmorrhage or extreme feebleness, the reasons given for withholding an anæsthetic in former labors are the very strongest indications for the careful administration of chloroform. In private practice he has only had one case of post-partum hæmorrhage, and in this case no anæsthetic was used, as the child was born before he had time to make an examination. Dr. Barker is convinced that the prevalent opinion that chloroform is dangerous for any woman with heart disease is erroneous. He has had a number of cases of labor dangerously complicated with organic heart troubles, which terminated favorably, as he thinks, solely from the use of chloroform. In an experience of thirty-seven years, using chloroform in several thousand cases, he has never in a simple case had reason to regret its use. The conclusions of Dr. Barker, drawn from such a large experience, will be most acceptable to the profession.—*South Western Medical Gazette.*

TO PREVENT MAMMARY ABSCESS.

Although Dr. Goodell ridicules the idea of aborting mammary abscesses, which he does not think can be done, yet Mr. Miall (*British Medical Journal*) says that when mammary abscess is on the point of forming, he has frequently seen all the symptoms rapidly disappear in a few hours, under the influence of fomentations with hot water and carbonate of ammonia. He uses an ounce of the carbonate in a pint of water, and when solution is accomplished the temperature of the fluid will be hardly too high for fomentation to be commenced, with cloths dipped in the liquid. He applies them for from half an hour to two hours, at the same time protecting the nipples. He has often had immediate relief, and seldom requires to make more than three applications.

A SUGGESTED ALTERATION IN THE COMPOUND LIQUORICE POWDER.

Having found that the above preparation produced very severe griping in many instances where he had ordered it, the griping being particularly severe in some of his younger patients, Dr. Martin Oxley (*Lancet*) had ordered the following formula for some time past, in which anise fruit is substituted instead of the fennel, and one-fourth part of ginger is added. The altered formula runs thus :—senna and liquorice-root of each 2 parts; anise fruit and sulphur, of each 1 part; sugar, 5¾ parts; ginger, ¼ part. This altered preparation is quite as satisfactory in its laxative properties, is less liable to gripe. and is as pleasant to take as the officinal powder, and he would suggest its trial in cases where the powder as now prepared produces the disagreeable effects to which he has referred. —*Phil. Med. and Surg. Reporter.*

VARICOSE VEINS AND THEIR TREATMENT BY OPERATION.

By Kendal Franks, M.D.

Varicose veins may result when the veins are no longer equal to the pressure of the blood within them. This may follow from two causes —one *extrinsic*, when from remote cause an unusual amount of pressure is thrown upon the veins, such as pressure upon the iliac veins, due to overloading of the intestines or to some abdominal tumor, or, as in some forms of heart disease, cirrhosis of the liver, and such other obstructions to the free course of the blood in the veins. Or the cause may be *intrinsic*—that is, for some reason or other, the veins have lost their tone and their elasticity, and are no longer capable of resisting the normal pressure from within.

Whatever the agency at work may be, the result is the same—namely, that the balance between the elasticity of the walls of the vein and the intravenous pressure is lost, and gradual dilatation and distension of the veins ensue. This loss of balance will be felt, of course, wherever the pressure is greatest; and these situations are those, in the dependent parts of the body, where the column of blood is the longest. If we take a long **U**-shaped tube, and almost fill it with water, the fluid in one limb will rise to the same height as in the other, but the pressure of the fluid on the sides of the tube will be greater the nearer we approach the base of the **U**—that is, the longer the column of fluid is. So it is in the veins. The column of blood in the veins is supported by the column of blood in the arteries, but the pressure in the veins will depend on the length of the column of blood it has to support. No doubt nature provides a means of taking off this excessive pressure by supplying the veins with valves, so that under normal circumstances the vein has only to support the column of blood that lies between two pairs of valves. But nature has also endowed the veins with the power of distending, so as to be able to accommodate an increased quantity of blood, should there arise any temporary obstruction to its onward flow through the heart. Now, when the veins so dilate, the valves within them are drawn apart, and so allow of regurgitation. This temporary distension of the veins and insufficiency of the valves is quite a normal process. But suppose that the obstruction to the onward flow of the blood, due to one of the extrinsic causes, is permanent, or that the condition of the vein walls is such that after distension their elasticity has become so impaired as to prevent them returning to their usual size, then the valves remain permanently apart, and are no longer capable of supporting the column of the blood. This throws an extra weight on the valves below, and these again yielding, the functions of the veins become more and more impaired. Now, in obedience to the general law in the body, that when a part loses its function it gradually wastes, so in the veins we find that the valves, being unable to accomplish their purposes, gradually atrophy, and may ultimately either disappear altogether, or their former existence be only recognized by thin fibrous bands on the inside of the vein. Hence it is, as Gay says, that "as a rule, veins that become varicose are destitute of valves."

Thus it happens that veins below the original site of lesion have a permanently increased pressure of blood thrown upon them, and this alone will eventually cause them to become varicose, even though they were themselves originally healthy, and although the original cause of the obstruction to the circulation may have disappeared. Let me here give an illustration of what I mean. Suppose that the original cause of increased pressure in the veins of a limb has been due to constipation, and the pressure of intestinal accumulation upon the iliac veins—suppose that this has continued long enough to cause varicosity in some of the veins of a leg, say below the knee; after a time the valves in these veins have became atrophied, and the veins permanently dilated—now, suppose that under proper treatment the constipation has been cured, will this allow the veins to resume their normal condition? No; on the contrary, this very destruction of the valves has thrown a permanently increased pressure on the veins below them, and this alone will cause them to undergo the same process, unless means be adopted to relieve them of the unusual pressure.

Now, to the sequel of events following on a vein in the leg becoming varicose. The circulation in the part is checked, the nourishment of the part is, therefore, seriously interfered with. The skin first becomes discolored and suffers from a form of eczma. Finally, the skin supply is so deficient that the part sloughs, and we have, as a consequence, an ulcer. Added to this, that the vein wall may suffer, and terrible hæmorrhage may ensue, not only from the lower radicals but from the trunk, in which there are no valves to check the backward flow. Now, under these varying circumstances, what treatment should we adopt? In the early stage, when as yet the vein is to a limited extent involved, but before the skin has suffered in any way, there can be no question that palliative measures should be adopted, and of these, in my opinion, the best is the elastic bandage. Its object is to yield that support to the veins, which their walls are unable to afford; and by such means, provided the offending cause be removed, and provided that the valves have not been destroyed, we may even hope for a cure ultimately. I will go further and say that in old and very debilitated subjects, such palliative measures are preferable to operation, under all circumstances. Again, if the varicosity of the veins in the legs be due to an irremediable extrinsic cause, operation is obviously excluded; as, for instance, if the condition be due to pregnancy, to pressure of an abdominal tumor on the iliac

veins, to disease of the heart, to cirrhosis of the liver, and so forth. Therefore, in all cases before operative measures be adopted, it will be necessary to satisfy ourselves first that such causes do not exist. From these exceptions we may deduce the cases in which I believe operation is advisable. Firstly, the varices must be due to intrinsic causes, or to remediable extrinsic causes, such as constipation, the pressure of an ill-fittting truss, tight-garters, or too long standing. In these latter cases the cause must be removed. Then, again, the patients should be young, or healthy adults; and let me here say that, in my opinion, comparatively slight varicosity may induce us to operate in a young subject, which in an advanced adult would not justify us.

Subject to the conditions already laid down, if, in a healthy adult, we find a varicose condition of the veins accompanied by an ulcer, or with a brawny condition of the skin, or with eczma, if it be sufficiently extensive to give rise to pain or discomfort, I think operation is the best treatment.

[The writer describes various methods of operating, which have not proved very satisfactory, and continues]:

I have full notes of 18 cases which I have treated by antiseptic excision, several cases the notes of which I have not preserved. In no case, have I seen "phlebitis, erysipelas, or pyæmia" follow as a result. The patient being placed under ether, I begin by shaving the parts where I purpose to make the incisions. The skin is then carefully washed with corrosive sublimate solution, sometimes oil of eucalyptus is also used. I then usually fasten a band round the limb, immediately above the knee so as to distend the veins sufficiently to be able to trace them accurately. If the veins are extensively varicose, it is much better practice to excise the chief radicals at intervals, removing two or three inches at each place, than to attempt to excise a long piece of vein. Nothing is gained by the more extensive incision. Having selected the place for incision, a clean cut is made through the skin, and almost immediately the swollen vein appears. The subcutaneous tissue over it is divided on a director. Should the vein be cut, it is at once seized with Spencer Wells' forceps. A strong cat-gut ligature is passed round the vein at its lower end. The vein above this is seized with the forceps and ligature. It can then be easily pulled out of its bed. Any radical going into it are ligatured and cut off; finally, the vein is tied at the upper angle of the wound and the piece excised. When the veins are tough with hypertrophied coats the proceeding is very simple; but when the veins are thin, especially if adhering to the skin, a good deal of care and patience are required. The wound is irrigated with corrosive sublimate solution, 1 in 2,000, a little iodoform dusted over it, and the edges brought together. In my earlier cases, I used to insert a drainage tube, but I now think it is quite unnecessary. The wound is then enveloped in some of the antiseptic dressing, whilst a second and a third piece of the vein is treated in the same way, if necessary. If both legs are involved, the second leg is treated at the same time. Both legs are then bandaged from the toes to above the knee. As a rule, the dressings are left undisturbed for eight or ten days, and when removed we generally find the wounds healed by first intention. In a few cases some suppuration occurred, but this was generally traced to some deficiency in the dressings, at a time when the dressings were improperly prepared. This only delayed the process of healing, but in every case the asepsis of the wound had been sufficient to protect the veins from contamination.

The beneficial effects have been in many cases as marked as to dispel all doubts as to the efficiency of the cure. A man, æt. 36, perennially on inmate of the Adelaide Hospital for varicose ulcers, refused several times to have an operation performed. Two years ago he presented himself again, with the ulcer as bad as ever, the skin brawny and discolored, the edges of the ulcer hard, elevated, and inflamed. He consented to an operation for the cure of the veins. I kept him in bed for several weeks, and treated the ulcer until it was about the size of a florin, and was quite healthy. I then had him placed under ether, and excised portions of those veins which seemed to be chiefly connected with the ulcer. All the veins operated on were above the ulcer—that is, on the side nearest the heart. The operation was performed as usual, and the dressings applied were not disturbed for a fortnight. They included the ulcer. When they were removed, the ulcer was found to be perfectly healed beneath them, and all the incisions—three in number—had healed by first intention. I allude to this case because it goes to prove that these ulcers are caused by the pressure in their efferent veins.

Early in November last, I operated on a young gentleman, æt. 25, the subject of extensive varicose veins in the right leg. The saphena vein at the bend of the knee was very large. He had previously been operated on by a surgeon in Dublin twice by the subcutaneous needle method, for the obliteration of the saphena vein at the knee. On each occasion three needles were passed beneath it at intervals of half an inch, and yet when I saw him this vein was as patent and as varicose as if it had never been touched, though the skin over it showed marks of where it had been constricted. I excised portions of the three most aggravated varices I could find. The wounds all healed by first intention. I saw this patient to-day. The veins operated on are all obliterated. He told me he had lost the bursting feeling in his leg from which he used to suffer, and that he had discarded the elastic stocking. The veins unoperated on remain varicose, neither better nor worse than when I saw him in November and is he so pleased with the former operation that he wishes all the

veins to be treated in a similiar manner. This case illustrates the superiority of excision over the constriction method.

Let me say a few words as to the permanency of the cure. If the varicose condition of the veins is due to a cause which we cannot hope to rectify —an extrinsic cause—we cannot expect the operation to be successful. But when we can remove the cause, and when, at the same time, we treat the effect, I consider that we have just grounds for assuming that the cure will be radical. Two years ago I operated on a young man, æt. 26, for extensive varices of one leg. A year and a half later he wrote to me to express his great delight at the permanency of the cure; that since the operation had been performed he had been able to take long walks, to stand the greater portion of the day without the slightest inconvenience, or without any sign of fresh varices appearing. I could point to many similiar cases.—*Dublin Journal Medical Science*, May, 1886.

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MONTREAL, APRIL, 1887.

ANNUAL CONVOCATION OF THE MEDICAL FACULTY OF BISHOP'S COLLEGE.

The annual convocation of Bishop's college, for conferring degrees in medicine, took place on the 31st March, in the Synod hall, Montreal. There was a very large attendance of the students and their friends, among whom the ladies were in the larger proportion. An interesting feature of the convocation was the conferring of a degree on a colored student from the West Indies—a fine, intellectual looking young man—the son of a wealthy merchant, who passed through the college with honors.

Mr. R. W. Heneker, chancellor of the college, presided. Among those present on the platform were Rev. Canon Norman, vice-chancellor; Dr. F. W. Campbell, dean of the faculty of medicine in college; Professors McConnell, Saunders, Trenholme, Wood, Baker Edwards, Lapthorn Smith (acting registrar, in place of Dr. Kennedy, who was absent in Colorado), Reddy, Rowell, G. T. Ross, Proudfoot; Rev. Principal Adams, of Bishop's college school, Lennoxville; Rev. Rural Dean Lindsay, Mr. Ed. Chapman, M.A.

REPORT OF SESSION 1886-87.

Dr. Campbell, dean of the Faculty, read the report, which was as follows:

The number of matriculated students for the session 1886-7 was 31, being an increase of 8 over last year's attendance. Of these, 1 comes from the United States, 6 from Ontario, 16 from Quebec, 2 from the West Indies, 1 from British Guiana, 3 from England, 1 from Italy, and 1 from India. Sixteen of our students are residents of Montreal.

The following are the results of the examinations:

Botany—F. E. Bertrand, Prescott, Ont.; F. Coote, Quebec; D. H. Judd, Mallorytown; W. N. Smiley, St. Lambert; J. M. Jack, Montreal; G. J. Tait, Jamaica, W. I.; H. N. Spooner, Highgate, Vt.; D. Macrae, Montreal.

Practical Chemistry—J. M. Jack, Montreal; C. A. Lauchlan, Montreal; C. E. Vidal, St. John; L. M. Clark, Kingston, Jamaica; T. S. Nichol, Montreal.

Practical Anatomy—T. S. Nichol, L. M. Clark, Frederick Taylor.

Anatomy—First class honors: L. M. Clarke, T. S. Nichol; second class honors: F. Taylor, Shannonville, Ont.

Physiology—C. E. Vidal and L. M. Clark, first class honors; C. A. Lauchlan, second class honors; passed T. S. Nichol, J. M. Jack, F. Taylor, J. Rohlehr (New Amsterdam, B.G.).

Materia Medica and Therapeutics—Messrs. Vidal and Clark, first class honors; passed, Mr. Tait (Jamaica, W. I.).

Chemistry—First class honors, Messrs. Clark, Lauchlan, Vidal, Nichol; second class honors, Messrs. Taylor and Jack.

Hygiene—First class honors, Mr. Jack; Messrs. Laurie (Quebec), Coote (Quebec), Judd, Vidal, Clark, Taylor, Smiley, Bertrand, Nichol, Elliott (Quebec); passed, Messrs. Tait, Macrae and Spooner.

Medical Jurisprudence—Mr. Pickel (Sweetsburg, P.Q.), first class honors.

Mr. L. M. Clark has passed the primary examination, consisting of anatomy, physiology, materia medica and therapeutics, chemistry, hygiene, practical anatomy and practical chemis-

try, and is entitled to the David scholarship, having obtained the highest number of marks in all primary subjects.

The following gentlemen have passed their final examination for the degrees of C. M., M. D., consisting of practice of medicine, surgery, obstetrics, and the diseases of children, gynecology, pathology medical jurisprudence, and clinical medicine and clinical surgery :—

Mr. W. E. Fairfield, of Clarenceville, Que.—First class honors and Wood gold medal, awarded to the student who has attended two six months' session at Bishop's college, and has attained the highest aggregate marks in primary and final examinations.

The Robert Nelson gold medal for special excellence in surgery is awarded to Mr. W. E. Fairfield. The contest for this medal was very keen between Mr. Fairfield and Mr. R. Campbell, the successful candidate winning it by only fifteen marks. This medal was founded by Dr. C. E. Nelson, of New York, and is awarded annually to the student standing first in a special examination in surgery, written and practical. No one is allowed to compete unless he has attended at least two sessions at Bishop's college, and has attained first class honors in primary and final examinations.

Mr. Rollo Campbell, of Montreal, has won the Chancellor's prize for the best final examination, the Wood gold medallist not being allowed to compete, and has passed with first class honors.

Mr. A. E. Phelan, of Montreal, first class honors.

Mr. A. P. Scott, of Montreal, first class honors.

Mr. Rohlehr, of New Amsterdam, British Guiana.

In order to pass in any subject, a candidate must obtain at least 50 per cent. of the maximum marks ; second class honors require at least 60 per cent. ; first class honors at least 75 per cent.

PRIZE LIST.

Wood gold medal and Robert Nelson gold medal, Mr. W. E. Fairfield, of Clarenceville, Que.

Chancellor's prize for best examination in final subjects, Mr. Rollo Campbell, of Montreal.

David scholarship, Mr. L. M. Clark, of Jamaica.

Practical anatomy, senior prize, Mr. T. S. Nichol ; junior prize, Mr. C. E. Elliott.

Botany prize, Mr. F. Bertrand.

THE CHANCELLOR'S ADDRESS.

Chancellor Heneker, in the course of his address, said :—The work of Lennoxville, comprising the Arts and Divinity Faculties, is very satisfactory. The number of students, although not so large as could be desired, is still large enough for satisfactory work, and perhaps as large as may be reasonably expected in a new country, where but few men use the advantages offered of high class education, for the mental training it affords, independent of any special pursuit in life.

CONFERRING DEGREES.

The graduates were then called before the chancellor, and, after having been duly sworn in by the dean, they received their diplomas. The prize winners were heartily applauded as they advanced to the platform.

THE VALEDICTORY.

Dr. A. E. Phelan, of Montreal, was called upon by the chancellor to read the valedictory address on behalf of the graduates. The address was well composed, and Dr. Phelan was frequently interrupted by applause—demonstrative if not boisterous—from his fellows initiated into the deep secrets of the medical profession. In the course of his address he bore testimony on behalf of the class of '87 to the pains which the professors took with the students, and to their zeal and their able instruction. The professors were ever ready to remove obstacles from the paths of the students, while at the same time they were foremost in advancing medical education in Canada. Dr. Phelan, in conclusion, told of the pleasures of their college life in Montreal, and was greeted with applause at the conclusion of his valedictory.

FAREWELL FROM THE PROFESSORS.

Professor Rowell delivered the farewell address to the graduates. After complimenting the members of the class of '87 on their industry and zeal in pursuit of their studies, he said that the medical graduates of to-day were better fitted to enter on their career in the profession than the graduates of thirty or forty years ago. A more extensive examination was now required in the ever growing knowledge of the profession, and a four years' course in a medical college was now a necessity. The professors of Bishop's college have not been backward in keeping pace with the times.

During the winter sessions they applied themselves to their special departments, and during the summer months many of them went abroad to seek instruction and experience in the older schools and hospitals of the continent. The students of Bishop's college had reason to congratulate themselves for the facilities of hospital inspection placed within their reach, and which were perhaps better than those of any other college. Not only had they the Montreal General hospital, but the Hotel Dieu and the Western Hospital. He asked graduates to remember their *alma mater*, and to do all in their power to reflect honor on it.

THE REV. CANON NORMAN,

vice-chancellor, then addressed the convocation. To their worthy chancellor, whose absence they missed last year, was to be attributed a large degree of the success of Bishop's college, and the speaker wished to bear testimony to the help which Chancellor Heneker was to the cause of true education in the province of Quebec. He congratulated the college on the increase in the number of students, and he could personally bear testimony to the unequalled courage and the manly endurance displayed by the professors of the faculty of medicine in the face of great difficulties. They knew that Bishop's college would have an up-hill fight when it was founded, but they had managed to surmount the difficulties, and it would be hard to find a body of men with such zeal and devotion as the professors in medicine. (Applause.) He was quiet satisfied that they would have a larger number of students next year, and he congratulated the college on having such a remarkably intelligent and clever class of freshmen. He was glad to see that a number of the graduates in medicine were also graduates in arts at Lennoxville.

In conclusion he trusted that the benevolence of the friends of the institution would soon enable them to build a hall of their own for the medical faculty, so that the money now expended on rent might be devoted to the cause of science. (Applause.)

The Rev. Principal ADAMS delivered an eloquent address.

Dr. LEO. H. DAVIDSON, in an admirable address, spoke of the advantages conferred by the college and its success in the cause of education. He wished the graduates "God speed" in their new life.

The company then sang the national anthem, and the convocation was brought to a close with prayer.

THE STUDENTS AT DINNER.

In the evening about fifty of the students and their friends sat down to dinner in the Richelieu hotel, which was done up in Durocher's best style. Mr. F. Taylor presided, and among those present were Drs. Armstrong, Perrigo, England, Longeway and others. The following toasts were proposed, and duly honored, "The Queen," "President of the United States," "The Governor General," "Our Alma Mater," "Trade and Commerce of Montreal." Appropriate speeches were delivered by the chairman and several of the graduates. The majority of the latter, in the course of their remarks, wished their confreres all success in their journey through life. Songs were also sung by several of those present. The evening passed off most successfully. The students deserve all credit for the manner in which they conducted the proceedings.

INTERNATIONAL CONGRESS ON INEBRIETY.

The Council of the English Society for the study and cure of Inebriety have completed arrangements for an International Medical Congress, to be held at Westminster Hall, London, *July 5th and 6th*, 1887. The object of this Congress is to present and discuss the problems of Inebriety medically, and from a purely *scientific standpoint*, by the best authorities, thus laying the foundation for a broader and more exact study of this subject. Papers and addresses are promised from a large number of the most distinguished physicians.

PERSONAL.

Dr. Kannon (M.D. Bishops College, 1879), who removed last winter from Montreal to Los Angelos, California, has been appointed assistant health officer of that thriving town.

The honorary degree of M.D. has been conferred by the University of New York on Mr. Lawson Tait, F. R. S., of Birmingham, England.

Dr. John Macleod (M.D., Bishops, 1877), has just returned to Canada from Australia, where he was engaged for the past ten years in practice. He has accumulated a competency, and is now *en route* to Scotland, where he intends to locate permanently.

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MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

Stated Meeting, Feb. 25th, 1887.

J. C. CAMERON, M.D., PRESIDENT, IN THE CHAIR.

Heredity.—Dr. W. G. JOHNSTON read a short paper on "Heredity of Acquired Peculiarities," which appeared in full in the April number of this JOURNAL.

Discussion.—Dr. SHEPHERD stated that those anatomical peculiarities which are characteristic of inferior animals are often transmitted for many generations; for instance, he had traced for two generations a well-marked supra-condyloid process. Deformities in the fingers and toes were often transmitted from one generation to another. He cited an instance where he had performed tenotomy for a peculiar formation of the toes in two generations. He knew of a family, each member of which was characterized for three generations by a preternaturally long first toe, possessing prehensile power.

Dr. MILLS said that Darwin did not seem to have been strongly given to speculation, and did not strive after a *final* explanation of his hypothesis. His Pangenesis, as an explanation of the facts of organic evolution, was by many biologists regarded as weak and unworthy of him. Brooks had attempted to show that the male generative element was concerned in *originating* variations, the female in *preserving* the existing form. If this were true, important conclusions followed. Medical men might throw some light on this and kindred matters. Dr. Hughlings Jackson had applied evolution to the discussion of diseases of the nervous system in his usual masterly manner. Inasmuch as morphological explanations never can be final, it was remarkable that physiological solutions had not been invoked prior to this time. Dr. Mills believed the solution must eventually come through physiology; in fact, quite recently Dr. Romanes had introduced "physiological selection" as supplementary to "natural selection," etc. Certainly at the present time the most thoughtful biologists feel the need of something additional to the Darwinian factors to give a complete explanation of organic evolution, which might now be considered, as Huxley called it, a "demonstration." Dr. Mills thought the time had now come for medical societies to discuss such broad generalizations of science in their bearing on their own science and profession. The question of the heredity or non-heredity of acquired peculiarities was especially within the scope of physicians, and one they could do much towards settling. He hoped to be able to lay before the Society some views of his own on the subject of organic evolution, in some of its aspects, at a future time.

Dr. TRENHOLME, referring to Brooks' theory, stated that he had noticed several cases where the permanence was on the male side. He had in one case traced polydactylism through three generations on the male side, and in another case the male members of a family were for several generations characterized by peculiar teeth.

Dr. HINGSTON referred to the fact that the practice of flatheaded Indians of flattening the frontal bone of their infants for many generations

had not produced any permanent change in the shape of their heads. Infants were born still with perfectly round heads.

"*Some of the Present Aspects of Surgery.*"—Dr. HINGSTON then read the following paper on this subject:

The aspects of a science or of an art are as the aspects of a country; not being always objective are not always the same—for the subject, seeing, has views of his own, habits of vision as it were, and these, unconsciously to himself, perhaps, change and color the prospective. I am as one, and only one, of those observers, and the field of observation—chiefly *ultra mare*—is the scene of former and more lengthened residence. During my recent visit to Europe, after an interval of nineteen years, I perceived, or fancied I perceived, among individuals in the higher walks of the profession, whether met with in society or at their own homes, a greater seriousness—a greater earnestness than on former occasions. Or was it that those intervening years had changed the mode of vision in the observer? The friction of mind against mind is seemingly incessant. The struggle for position is unremitting—rendered the more necessary by the increased and steadily increasing cost of living, and almost *pari passu*, the steadily increasing number of votaries to the healing art. The large incomes enjoyed—not always enjoyed, but always slaved for—by a limited few, have caused recruits innumerable, each one hoping to achieve distinction, as in the time of Napoleon the humblest soldier was animated with a hope of one day exchanging his musket for the *baton* of the marshal. Although great courtesy characterizes the relationship of members of the profession with one another, there are few who are not keenly alive to the necessity of continued effort for supremacy, as well as for its recognition; and self-assertion, though clothed with becoming modesty, is not always absent from the highest and most conservative ranks of the profession. But plain, honest thought—most markedly in Great Britian—finds plain, honest expression at all the meetings of societies I attended. Vague statements are unheeded; and if imagination is suspected as a possible source of stated fact, a clapping of hands is an indication of *that fact* having been duly noted. The most imaginative could not devise a readier method of expression than the clapping, graduated on a crescendo scale, which marks distrust or disapproval; and tediousness or irrelevancy receives a quietus in the same way.

The vast strides in the study of minute and morbid anatomy, and in special and general pathology, have opened up newer and, it is said, more profitable fields of professional labor. The growth and multiplication of specialties are prodigious. The three divisions of physician, surgeon and accoucheur; the subdivision of eye and ear surgery, and afterwards the further separation of the two latter, are no longer adequate to express the numerous subsections of professional work. On former visits I usually spent an hour or two a day with Sichel, Desmarres, or Graefe over the eye; with Wilde or Toynbee in studying the ear; while a Stokes, a Graves, a Trousseau or a Schönlein was, in our then benighted condition, deemed fit to teach the practice of medicine in general; and a Syme, a Velpeau or a Langenbeck was supposed to be quite abreast of general surgery. Now, all is changed, and perched on every barleycorn of vantage ground the specialist works in a narrower, a more restricted sphere, seeing clearer, no doubt, what he *does* see, but with less acquaintance, it is said, with the ailments of other organs with which his own may be intimately connected. Yet the labors of the specialist—each in his own department—have greatly advanced the general stock of knowledge. The all-round man is becoming a *rara avis*; yet when a Jonathan Hutchinson appears, going to and from the meetings of the British Medical Association, he is greeted by physician and surgeon alike as one who, in his day, has touched many things pertaining to both medicine and surgery, yet of whom it may be said, *nec tetiget quod non ornavit*. It is men such as he who show us how the various branches of our art are mutually dependent, and how they correct, reform and reclaim each other. The newer and more inviting fields of special work are, in Great Britain, drawing into their ranks, at a rapid rate, men who will be competitors in those ranks. There must soon be a limit to subdivision. The story told a few years ago of a lady in London who had given her lungs to one physician, her liver to a second, her heart to a third, her womb to a fourth, and so on, would now be strange in the atmosphere of refined life, were she so incautious and so ill-informed as to confide the whole of any organ to a single individual.

Now and then, as you are aware, efforts are made in the direction of synthetizing diseases. Thus Erasmus Wilson, in his old age—and it was a richer legacy than that represented by his Cleo-

patra's needle, reduced, for therapeutic purposes, diseases of the skin to *four* clearly and easily understood heads. The whole was contained in a few duodecimo pages. Eczema was grouped naturally under one of them, and I much doubt if any of the octavo volumes on that disease alone have contained more matter for the practising physician than the few lines in question. No one is still doing more to harmonize medicine and surgery than Sir James Paget, who draws from pathological anatomy and from clinical pathology, whether for the use of the experimentalist, the chemist, or the microscopist.

Great advances have been made in the diagnosis of diseases of the different cavities of the body; but in the exploration of mucous inlets, as the nose, larynx, trachea, urethra, bladder or vagina, I failed to notice any advantages not within the *portée* of practitioners twenty years ago.

The *principles* of treatment are not now much better understood, although *diagnosis* may have outstripped its former self by many a stride. With the greatly increased facilities for the investigation of disease, with the improvements in the methods of diagnosis, and with the application of direct methods of treatment, initiation is sometimes shrouded in well-intentioned mystery. For instance, in a specular examination of one of the mucous inlets, there was an arrangement of mirrors, which reflected the electric light *four* times before it reached the mucous membrane. The green baized drapery completed the illusion; and the fee was larger, possibly, than if the examination had been gone through with direct light or with light once reflected.

The separation of medicine, as a whole, from surgery, as a whole, seemed destined to be complete and irreparable. But it is not so. Handmaids of each other they must ever remain; again a tendency is noticeable of an *approchement*, and this time by the invasion by the surgeon of the domain of medicine.

The lines which separate specialties are, as I have said, narrow, short, yet well defined. They are steadily becoming narrower, shorter, and still more defined as between specialties, and especially surgical specialties. That the public is a gainer is much doubted. But while the lines which confine specialism within steadily narrowing limits are becoming more defined, the lines which separate medicine, as a whole, from surgery, as a whole,—even in those departments in which, till recently, the physician tolerated not the aid or intervention of the surgeon,—the latter has dared to enter, and with advantage, the domain of the physician. Not many years ago, for instance, in all affections of the chest or abdomen requiring manual interference, the surgeon was sent for, and the operation was performed at the request and under the guidance and direction of the physician whose diagnosis was followed, and who had called in the surgeon to do that which required a cooler nerve or a more dexterous hand than that possessed by himself. How is it now? The surgeon's knowledge of *internal* derangements within the skull, chest or abdomen requires to be so precise that skill in operating must wait upon, and be preceded by great accuracy in diagnosis. The surgeon who trephines the skull, cuts through its membranes, and removes a tumor from the brain; or who sends a bistoury through its substance to an abscess, does that which requires no extraordinary manual skill or dexterity—a butcher or a butcher's boy could do it as well. But the exact, the precise localizing of disease within the brain, by the correct interpretation of disturbance of function *at a distance*, is one of the greatest triumphs of modern surgery, and is a step towards its recognition as a science as well as an art. The domain of the surgeon is, therefore, steadily extending, and fractures, dislocations and excisions of tumors no longer limit the field of his labors.

It would be inconsistent with the time at my disposal to traverse the field of practical surgery, to point out what might be considered encroachments upon the territory of the physician. I shall only allude to those instances where, till recently, medicine, and medicine alone, was relied upon for relief.

In chest affections requiring surgical interference, diagnosis must be clear and precise. In empyema, for instance, not alone must the quantity and situation, but even the quality of the fluid be made out before proceeding to operation. In bronchiectasis of the lung, where the difficulty of diagnosis is admittedly great, it must be precise before resorting to any operative procedure. Here, again, the surgeon, although he may receive aid in determining the exact site and nature of the disease, must rely upon his own diagnosis chiefly, if not entirely.

In local peritonitis, what could be more daring, more surprising, and yet more satisfactory, than Mr. Lawson Tait's thrusting a bistoury into the

groin of a woman laboring under all the symptoms of puerperal fever, where he suspected pus by the symptoms alone, but where, as he told me, there were no outward signs of its presence, no swelling, and no local tenderness. From a condition almost of collapse, recovery took place. The operation was not, 'tis true, a difficult one. Anyone could have performed it; but the diagnosis was prophetic.

The case of Dr. Leslie Phillips, operated upon by John W. Taylor, F.R.C.S., is of like character; and now that attention has been directed to the subject, and that surgery has taught a means of escape, deaths from supposed puerperal fever will, it is hoped, be less frequent than formerly. Here, as you will see, surgery comes to the relief of the obstetric physician in cases which are peculiarly within the province of the latter.

In diseases of the abdominal organs, how much has lately been done by surgery. Hepatitis, with all its train of sufferings, was claimed by medicine as its own; but surgery of the liver has suddenly leaped into importance lately. A painful, inflamed and enlarged liver is now relieved by Harley and others, and the patient cured by the insertion into it, at its upper and convex part, of a long trocar, and by the drawing directly therefrom as large a quantity of blood as was considered prudent to be taken from the arm in the days of venesection. Operation for draining hepatic abscesses or removing hepatic cysts; cholecystotomy for crushing or taking calculi from the gall-bladder; laparotomy for purulent or persistent peritonitis; abdominal sections for internal hemorrhage, etc., are all of recent date, and open a field, not of brilliant operative procedures, but of more brilliant diagnosis, and what is of greater moment, of far more beneficial results.

The considerable degree of immunity from danger which has attended abdominal sections has led to the spaying of females—married and unmarried—for sometimes real—sometimes, it is believed, unreal sufferings. This operation has been performed for objective disturbances, and for disturbances purely subjective. Prolapsus of the ovary, a common affection; atrophy of the ovary, not easily diagnosed; œdematous ovary; a pultaceous condition of the ovary; cirrhotic ovary; hydrosalpinx; in pyosalpinx *pur et simple*, often guessed at by raised temperature alone; in pyosalpinx resulting from gonorrhœa; in that condition of neurosis whose shapes are endless and whose outward hysterical manifestations are innumerable; in localized peritonitis where the intestines, omentum, etc., are glued together, etc.; in inflammatory conditions after confinement, especially in the acute and subacute stage; in deformity, where the birth of a living child might be *reasonably* expected to prove fatal to the mother; in uterine myomata, where the size of the growth is inconvenient; in bleeding myomata; in (who would believe it?) all cases of uterine myomata in patients under 40 years of age; in retroflexed and anteflexed uterus; in epilepsy; in hystero-epilepsy; in every case of insanity in the female!!

Here, as you will perceive, I have said nothing of those considerable tumors of the ovary or tubes —cystic, fibrocystic or malignant—which all agree may demand removal. Is it to be wondered at that this operation should be resorted to with a frequency which is alarming? Oöphorectomy is to-day epidemic in many places on the other and on this side of the Atlantic. Occasionally an authority, such as Thomas More Madden, in Europe, writes that the operation of laparotomy is performed "too frequently" and in unsuitable cases; and Emmet, on this side, stems the tide somewhat by saying that for a year he had seen but one case of disease of the tubes where the operation might be justifiable, that the patient refused to be operated upon, and got well in a few months. Yet every one knows Emmet's unsurpassed field of clinical observation. In one hospital in Liverpool, says Dr. Carter, no less than 111 women had been deprived of one or both ovaries during the year 1885, said to be about one-third of all the patients admitted. This frequency continued in 1886, and led to a commission of enquiry. Canada has many oöphorectomists and salpingotomists. The *Canada Lancet* has denounced the epidemic, and at our own Medico-Chirurgical Society, ovaries are sometimes fished up from the depths of the pocket—sometimes the vest pocket,—and, sometimes it has happened that so able a pathologist as Prof. Osler has, after close inspection, declared he found nothing abnormal in them. The fashion, doubtless, will soon change; diagnosis of affections of the appendages will, in the meantime, have been much advanced; and the question of operation will have been settled in accordance with those general principles which should guide all prudent and honorable men in its performance or rejection. This question has a moral and a

social as well as a medical aspect; but I do not arrogate to myself any preparedness not possessed by others. I may say, however, I have more than once prevented the operation, and I have been afterwards thanked for it, and another then unborn generation has been advantaged by it. I admit there are cases where a diseased condition of the ovaries or tubes demands surgical interference; but those are not cases where every objective sign is absent, and where the symptoms detailed by a hysterical women are the only guide.

Discussion.—Dr. TRENHOLME did not believe that gynæcology, as a branch of surgery, would ever lose its importance; its utility was undoubted. With regard to spaying, the speaker expressed his belief that it would be better if every insane person could be prevented from propagating his species, and the same could be said of criminals. He gave an account of a case where one noted criminal marrying another had given rise to a race of no fewer than 176 noted criminals, male and female. With regard to the utility of abdominal sections, he could only say that in his experience more than 90 per cent. were cured of undoubted and often intense suffering. He did not think that patients suffering from pyosalpinx or hydrosalpinx when over 40 years of age required operative measures, but believed in operating on in all cases where patient was 28 to 30 years old.

Dr. GARDNER agreed with Dr. Hingston that there should be objective signs to justify operation, except in a few cases—*e.g.*, cirrhotic ovaries. Dr. Bantock gives many cases of diminution of ovaries which produced intense suffering, but which were cured by operation. With regard to the removal of ovaries for myomata, it is known that many myomata may exist for life without producing the smallest danger or even discomfort. On the other hand, these tumors may produce dangerous hemorrhages or intense pain, and ovariotomy, as a rule, gives relief. With regard to neuroses, we have still much to learn about the effect of the ovaries on the nervous system. Pelvic pain is often undoubtedly of central origin, yet in many cases it is due to the ovaries. In selecting proper cases for operation in neuroses, we require experience. This, however, will come in time.

Dr. SHEPHERD remarked that nervous affections were now treated by operations on the eyes instead of ovariotomies. Cutting the eye muscles is a recent mode of treatment for epilepsy and insanity. Many cures are claimed for this method of treatment.

Dr. HINGSTON, in reply, stated that he did not wish to depreciate gynæcology, but he did wish to denounce this wholesale operation for subjective symptoms. Such recognized authorities as Spencer Wells, Keith and Emmet speak in much stronger terms than he. The *London Lancet* has for some time refused to publish the papers of these wholesale ovariotomists. He believed that if men like Lawson Tait and Savage, who operate for subjective symptoms, are to be imitated by men with less judgment, it would lead to unlimited operating. Every hysterical girl with pelvic pain would be a fit subject for ovariotomy. With regard to ovarian fibroma, he could cite very many cases in his own practice of women who have had uterine fibromata all their lives without causing them any discomfort. Otis claims to have cured neurosis by circumcision, and contends that many forms of epilepsy can be thus cured. Ovariotomy is the modern fashion in surgery, just as the now almost discarded Syme's external urethrotomy was the fashion a few years ago.

Correspondence.

PARIS, 8th MAY, 1887.

DEAR RECORD,—In my last letter I told you that I would in my next endeavor to give your readers some idea of Apostoli's method of employing electricity in Gynæcology. I was the more anxious to acquaint myself with his process, because I have always held the view that most of the diseases of the female generative organs depended on disordered innervation, circulation, and nutrition, and that the only sure cure for these diseases would be found in a system of therapeutics, which would directly re-establish these functions. This then was the main object of my visit, and in Dr. Apostoli I found my wish fully gratified. After a pleasant lunch at the magnificent club, which has a membership of eighteen hundred scientific and literary men, and where I made the acquaintance of Paquelin, and several others whose names are known to fame, Dr. Apostoli took me with him to his private clinic at the *Halles*, and introduced me at once to his instruments, which, I must confess, had hitherto been somewhat strangers to me. They were as follows:

1st. A battery of sixty Leclanché cells, connected in what is called series of tension, that is

the positive pole of No. 1 is connected with the negative of No. 2, and the positive of No. 2 with the negative of No. 3, and so on. The wires of all these couples are received by a very important but somewhat complicated machine called

2nd. A collector, by means of which you can gradually bring the strength of the whole battery to bear, one cell at a time. The collector has a double index, by means of which the first or any worn out cells can be thrown out of the circuit, as they would only hinder the others from doing their work.

3rd. The galvanometer, the most important of all, by means of which the dose is measured out in thousandths of ampères. For example, strychnine and atropine are very useful medicines, but they would be likely to do more harm than good if we had no scales with which to measure them; the galvanometer is to electricity just what a fine pair of scales is to strychnine. It is only since electricians have invented accurate galvanometers that electricity can be used effectively and safely.

I may mention for the information of some of your readers that the ampère is the measure of quantity, the volt is the measure of intensity, and the ohm the measure of resistance. To explain further these terms, quantity, intensity and resistance, I must compare electricity to water. Now, if you have a large quantity of water running over from a large flat basin, you would have quantity without pressure or resistance. On the other hand, a much smaller quantity of water confined in a very fine but very high tube would give great pressure without quantity; that corresponds with intensity in electricity. But if we have a current of water flowing through a very long and very thin pipe, we will have friction, which corresponds with resistance in electricity.

4th. A Gaiffe faradic machine, with long, fine wire coil, and short, thick wire coil and commutator. This is worked by two Leclanche couples.

5th. A platinum electrode, which can be converted into a Simpson's sound or a trocar, at will.

6th. A set of uterine and vaginal excitors or double electrodes.

7th. A large abdominal electrode, made of very moist potter's clay, on the upper surface of which is stuck a large, flat piece of zinc, and on the under surface a piece of coarse tarletan to hold it together, and through the meshes of which the moist clay transudes.

This is the outfit; but I must explain that the positive and negative poles of such a battery have very different qualities; the positive pole, about which oxygen and acids accumulate, is like an acid caustic, coagulating and astringent; while the negative pole, about which the bases soda, ammonia and potash accumulate, is fluidifying and produces an action like the caustic alkalies.

Well, then, a patient mounts the table, she complains of losing blood continuously for several months, pain and weight in the back and belly; the sound enters 4½ inches and a digital examination reveals a large fibroid in the posterior wall of the uterus.

Dr. Apostoli decides to employ a positive chemical galvano cautery to the uterine cavity. He first irrigates the vagina with 1 in a 1000 sublimate solution, as I may say he does before and after every examination and operation, no matter how trivial, and then introduces the platinum sound right up to the fundus, the vaginal portion of it being covered with celluloid tubing, which is one of the best and cleanest of non conductors. In a few minutes, after gradually increasing the current until the compass needle marks 150 or 200, and even sometimes 250 milliamperes, the platinum sound becomes bathed in acid, which coagulates the blood in the uterus into so firm a clot, that it can with some little traction be withdrawn, and the hemorrhage ceases. Without the clay electrode on the abdomen, the skin there would have been burned with so strong a current, and until Dr. Apostoli thought of it, no one could administer more than 40 or 50 milliampères. It being covered with a towel, and the patient herself pressing it down with both hands, the current enters her system by more than a thousand doors.

Apostoli used to never go beyond 50 milliampères, but he made the seance last 10 or 15 minutes; but now that he can go as high as 250 milliampères, he only makes the sitting last 5 minutes.

As soon as the hemorrhage stops, which it generally does after two or three applications or less, he goes for the fibroid, if it is in an accessible position, that is behind, or anywhere within reach through the vaginal cul-de-sac, but not if it is in front and high up, owing to danger of injuring the bladder. The way in which he goes for it is as follows:

An assistant presses the uterus backwards from the abdomen, while he feels for the fibroid with one finger pushed up into Douglas' sac, and with the right hand he plunges the trocar end of the sound

into the fibroid, a distance of half or three-quarters of an inch. The dose is very gradually increased to 100 or 150 milliampère and the trocar is left in for 5 minutes, when it is withdrawn, and the wound dressed with iodoform gauze. A large, soft slough comes away in a few days, the negative pole having been used. The result is two fold: the fibroma is diminished in bulk at each sitting to the extent of the scar, and the current contracts all the vessels of the uterus, and causes absorption of the hyperplasic deposit. The operation is in nowise dangerous, and though a little painful is often performed without any anæsthetic. Of course it is antiseptic as that amount of electricity kills all germs.

He only continues the operation until the tumor is so much di minished in size and in nature, that the woman no longer complains of any symptoms, or, as he calls it, until she is symptomatically cured.

He applies the same treatment to cases of chronic pelvic cellulitis, and I must say with remarkable results, but it must be chronic. In a few sittings the diseased tissue either comes away in slough or is re-absorbed. But still more remarkable because almost instantaneous were the results of the application of the faradic current in cases of ovarian pain and hysteria. Over and over again patients came there for the first time with such tender ovaries, that they could not bear the weight of the hand on the abdomen, and who after ten or fifteen minutes of the intra-uterine application of the faradic current with the long, fine coil, could bear any amount of pressure.

In cases of relaxation of the vaginal and uterine muscles he employs, on the contrary, the current from the coil of thick, short wire, which has a more powerful effect in contracting muscular tissue, while the long, thin wire acts more as a nervous tonic.

In my opinion, we have here precisely the means we have been waiting for for years to strengthen the uterine supports. For example, when we are called upon to treat a case of lateral curvature of the spine, which we know to be due to weakness of the erector spinæ muscle of one side, it is not by ordering stays that we can cure the case, for they will only make the muscles weaker and more lazy. While good air, good food, frictions, and gymnastics, either voluntary or artificial, by the aid of the faradic current, will soon train the defaulting muscles up to the point of doing their duty.

So, for the same reason, instead of introducing pessaries into the pelvis of a women, whose uterine muscles are not doing their work, we would do much better, I think, to put these defaulting muscles through a course of electrical gymnastics, until they have learned to do their duty. Apostoli has charged me with the task of translating his last work, and until it appears, I cannot more than briefly hint at the manifold methods in which electricity, in its various forms and strengths, can be applied. In tedious labour, and in ante- or post-partum hemorrhage, it is more certain than ergot, much quicker to act, and under perfect control. In subinvolution of the uterus, after miscarriage or abnormal labor, it is an easy and sure means of getting perfect contraction, alike of the blood-vessels and the muscular tissue. In extra uterine fœtation it is the only means of killing the fœtus. In hysteria, hystero-epilepsy, neuralgia and gastralgia one must see its effects properly applied, in order to realize what it can do. I feel sure that when electricity becomes better understood, spaying, now so fashionable, will become a lost art, and the death rate in gynæcological practice will become nil, while the treatment will be more effective. Even dyspepsia, the bane of medical existence, Apostoli believes can be fought and triumphed over at the point of the electrodes (on the pneumogastric nerves in the neck,) as he believes that the disease depends on defective innervation of the digestive organs.

Making all due allowance for the natural enthusiasm of an inventor, I think that we will all before long admit that the advantages of Apostoli's method are real, and that the method itself has come to stay.

I spent several hours under the magic eye of Professor Charcot; but I fear my letter is already too long, so I will speak of him in my next, when I also intend to say something of Berlin. Till then,

I remain, your truly,

LAPTHORN SMITH.

Progress of Science.

REST FOR PAINFUL EYES, IS THIS ADVICE ALWAYS GOOD?

By JULIAN J. CHISOLM, M.D.,
Professor of Eye and Ear Diseases in the University of Maryland, Surgeon in Charge of the Presbyterian Eye and Ear Charity Hospital of Baltimore City, etc., etc.

When the eyes tire under much and long continued use, relief naturally comes with rest, and we voluntarily desist from work so that the

eyes may regain their normal condition of comfort; and this they readily do. This eye-weariness, which comes on simultaneously with a tired feeling in the whole body, is not a painful condition. That it is a general discomfort which rest relieves is familiar to us all as individuals, and hence we are ever ready to acquiesce in the proposal to rest our painful eyes, when such advice comes from the physician to whom we have appealed for treatment. But is this advice always good?

To answer correctly this very important question, eye troubles must be classified into two great divisions:

1. We have diseased states of the eyes, inflammatory in their nature, accompanied by pain with other evidences of congestion, and often associated with blurred vision.

2. This great division comprises faults in eye construction, defects in the focusing power, errors in refraction, unaccompanied by visible congestions, except on abusive use of the organ.

In one or the other of these two great classes most eye troubles can be placed.

When we see an eye that is red, watering, painful, and in many instances accompanied with blurred vision, whether this trouble be in one or in both eyes, we naturally and properly advise rest from eye work, while the inflammatory symptoms are being relieved by judicious medication. We even shut out the normal retinal stimulus, light, by smoked glasses or darkened rooms, and thereby add to the comfort of the patient.

All eyes, painful under use, are not necessarily inflamed ones. On the contrary, a very large number of the most annoying eye troubles are not dependent upon diseased conditions. The discomfort induced by the use of such eyes is occasioned by faults in the focusing power, necessitating over-use of the eye muscles, and subsequent pain in the eyes and head. Any disturbance of the system, which causes temporarily general muscular debility, will diminish the force of the eye muscles, and increase the tendency to head and eye pains. As these eye faults are most frequently congenital, starting with our very being, they often begin to show their injurious effects when young, growing, and not necessarily over-strong eyes, are taxed in the acquisition of knowledge, and when the advice to rest these painful eyes for months at a time is a serious interference with school life and with education. In this classification is brought a very large number of young persons, whose eyes are badly shaped, and hence pain in them on use.

A well shaped eye should be nearly a sphere. In such a round eye the inner or retinal coat will receive the focused image, sharply defined, of distant objects, without aid from muscles of accommodation. These important muscles, within such an eye-ball, are called into use when the eye is viewing near objects. Writing, reading and sewing, are properly called eye work, because they require the need of the accommodating eye muscles. All other uses to which the eyes are put, except the viewing of near objects, means rest. This, of course, is not rest from retinal work, which is going on actively as long as our eyes are opened; for, as a rule, the retina does not seem to tire. It means rest from intra-ocular muscular work. Such a round eye is called emmetropic, and is the type of a good one. This is the kind of eye that nature should always supply to the human race.

Unfortunately, from this standard deviations, detrimental to the comfortable use of the organs, are found in numbers. Many children are born with eyes flattened from before backwards, so that the retina is brought too near the lens, and therefore in front of its normal focus plane. This flat eye is called over-sighted or hyperopic. Such a flat eye, when at rest, does not see even a distant object sharply. It needs muscular work for all purposes, to enable it to focus light from far, as well as from near, objects. Such an eye is never at rest during waking hours. As nature abhors a vacuum, so badly shaped eyes may be said to abhor badly defined pictures on the retina. An effort is made involuntarily by the flat eye to sharpen outlines and perfect the focus. This is always a muscular effort. When required for distant vision, as is always the case with flat eyes, some of the muscular force of the eye is used up, leaving less for the accommodating power in viewing small near objects. If the eye be very flat, and the demand upon the muscular apparatus necessarily very great for even distant objects, then the moderate use of the eyes for reading soon exhausts the remaining muscular power. After reading for a short time, the natural relaxation of the over-worked and tired muscles changes the focus of the lens, blurs the image upon the retina, and causes the letters of a page to run together. A little rest enables the muscles to resume work, and the printed page to be again clearly seen, but a very few more minutes' use of the tired muscles again blurs the page. If the effort to read be persisted in, pain in the eyes and in the head ensues. If the muscular force be weakened by any acute disease, then the eyes give out the sooner. We experience this in children after measles, diphtheria, etc. Children who could study with comfort before the attack, find themselves unable to read for any length of time afterwards. Often months are required before the eye muscles again become strong.

An eye may be so very short in its antero-posterior diameter that all the intra-ocular muscular power is required for viewing distant objects, leaving none for near work. Children with such badly shaped eyes cannot study, because from deficiency in the focusing power of the crystalline lens they cannot distinguish the shape of the small letters. The nervous apparatus of such an eye is good. The retina and optic nerve are perfect, but the picture thrown upon this retinal screen is blurred, solely for want of accurate focusing power. Add to the lens power, and perfect vision for small

objects is at once obtained. The accidental use of their grand-mother's glasses to aid the crystalline lens to focus a sharply defined image is a marvellous revelation to such an eye, and shows just what it requires to make it a strong, useful organ, viz., a pair of properly adjusted magnifying spectacles. With such scientific aid the child is in condition to undertake hard study, and seeing clearly becomes easy. Because over-exertion of the eye-muscles is no longer required, when the child wears properly selected glasses, no more pain in eyes and head is experienced during study hours.

Although rest from near work will always bring about relief from the pain consequent to over muscular exertion, the advice so often given to parents by the family physician, to take hyperopic children from school, and let them rest their eyes from study, for months at a time, is bad, because it is founded on ignorance of the cause producing the trouble. At the end of six or twelve months, the eye is just as mis-shaped as it was before the rest was taken, and application for near work will surely bring the former painful discomfort. This is a matter of every day observation. Adjust proper glasses, correct the error of refraction, give the eye muscles less work to do by allowing the eye to do its work with spectacles on, and consequently without effort, is surely the rational course to be pursued. With the aid of magnifying glasses for all uses a flat eye will need no rest. To rest such eyes with the expectation that they will become strong is delusive, and is, therefore, bad advice.

Again, an eye may be mis-shaped from the round standard by being longer than it ought to be. An eye long in its antero-posterior diameter is more oval than round, and is called near-sighted, or myopic, because it only sees near objects clearly. The retina is so far from the lens in long eyes that a focus of light from distant objects is made before the retinal screen is reached. When the picture is finally thrown upon the nerve layer, it is ill-defined and consequently blurred. Distant objects for such eyes are always befogged, unless the strength of the crystalline lens is weakened, and its focus lengthened by the use of concave or near-sighted glasses. As flat eyes were always congenital, so long eyes may be found at birth. As a rule, however, eyes acquire this condition, and become mis-shaped by too much study in early school life. When an eye, previously good for seeing distant objects, changes shape and becomes nearsighted, the change indicates a yielding of the sclerotic or outer tough coat, which is the sustaining wall of the eye-ball. This is a weakening and diseased condition of the organ, which will eventually be a serious injury if it becomes excessive.

When progressive near-sightedness is found in school children, in order to check the rapid deterioration in this very valuable organ, rest from eye-work becomes a very important factor in the treatment. When the eye-ball is elongated, the cornea retaining its regular outlines, concave spherical glasses correct the defect in the focusing power of the lens and make vision better; but this aid for distant vision does not make such young and still growing eyes strong or capable of standing abusive work.

There is still a very important class of mis-shaped eyes, also starting usually with the beginning of life. It is to call attention to the headaches and eye pains caused by many such eyes that this paper is written. In this large class of painful eyes the cause of trouble lies in irregularities of curvature of the surface of the cornea. The curvatures of the various meridians differ, as if the eye-ball had been flattened from its sides. In such eyes the mis-shaped cornea may be represented by the crystal of a watch, which has lost its true spherical form, from irregular pressure upon its edges when the substance of the glass was still soft. The curvatures of the short diameter, corresponding to the direction of pressure, must be greater than those of the longer ones, and this must necessarily vary the focus of light passing through these different convex surfaces. In some meridians light may pass through and focus correctly upon the retina; in other directions the focus of transmitted light will be made too rapidly or too tardily, in either case blurring the retinal image, and causing defective vision. Whether the cornea border be compressed vertically, horizontally, or obliquely it so changes the surfaces of the cornea for that direction, that however perfectly the other surfaces of the cornea may focus, the faulty curvature acts as if it were a distinct lens of different focal power, and it will cast shadows over the sharply defined picture made by the correct portions of the cornea. This error of refraction is called astigmatism, and may be found in long, short, or round eyes; hence we find simple or mixed, hyperopic or myopic astigmatism. Such irregular corneas are frequently met with.

In all such eyes an effort is made automatically to correct this fault by changing the shape of the crystalline lens to correspond with the irregularities in the cornea. Fortunately the lens in young persons in so soft and jelly-like, that very little action on the part of the eye muscles corrects the faulty lines of refraction, and a perfect focus is secured. For a time this succeeds well, and comfortable, clear vision is enjoyed, provided the application of the eyes for near work is not too long continued. But unfortunately the lens is hardening steadily with advancing age, and the muscular effort has to be continually increased till it becomes irksome and finally painful. The discomfort produced does not restrict itself to the eyes alone, but diffuses itself over the brow, forehead, and temples, causing headache more or less persistent. In some cases the pain invades the whole head, back of neck, and even spine. Those headaches can always be brought on by eye-use. To some very sensitive astigmatic patients eye-use refers to their whole waking life. They arise in the morning

with comfortable heads, but before they are dressed the headache has been started by the necessary toilet preparations, and it increases in severity with the advancing day. Sunrise and all-day headaches they are, with some of these very susceptible persons, whose eyes see differently for the different curvatures of their corneæ.

Every object in nature will radiate light from every exposed surface, and the eye catches some of these rays. Where the cornea is regularly curved light from any and all directions is accurately focused on the retina, and while we see everything perfectly, we are not aware that we have eyes, so painlessly do they function. To the abnormally sensitive astigmatic eye, this varied direction of light beams transmitted through, and irregularly refracted by the varied curvatures of the cornea, necessitates nearly a choreic action of the ciliary muscles. From this perpetual changing of focus, now for one part of the cornea and then for another, fatigue of the muscles and pain in the eyes must soon be induced, even to the extent of making sunlight annoying.

This irregular shape of the cornea can be detected if the eye views a drawing similar to a clock dial, traversed by groups of black radiating lines of equal size and distinctness. By a well-formed eye these groups of lines are seen with equal sharpness of outline and of the same degree of blackness. By an astigmatic eye some of these groups of lines are brought out much more boldly than others. While some remain black others of these black lines may appear gray, and at times even red or blue; and instead of standing out boldly in the group they run together as if they were one solid line. The faulty lines are always at right angles to those most clearly seen. With the clock dial card, if the lines running from 12 to 6 o'clock are brightest those from 3 to 9 o'clock will be most blurred. If those from 10 to 4 are the most clearly defined, the blurred lines will be in the direction of 1 to 7 o'clock, and so on for any other series of lines. If a cylinder lens be selected, which will make the dull lines as bright as the clear ones, this peculiar eye-glass, when carefully set at the proper angle, will equalize vision, and will remove the discomfort which the use of the eyes had formerly produced.

The ordinary spectacles, worn by the masses, are called spherical lenses, being sections of a sphere or ball. Such are the glasses worn by near-sighted and by old persons. The peculiar glasses which correct irregularities of corneal refraction are called cylinder lenses, because they represent a slice of glass taken from the length of a round bar or cylinder. The spherical and cylinder glasses bear the same relation to each other as would an open umbrella to a wagon top. The cylinder lens has, as it were, a ridge pole over which the curvatures of the lens are made, while the spherical lens curves in all directions from a central point. In the use of cylinder glasses the ridge pole or plane surface is always set in the direction corresponding to the clearest lines of the clock dial, and the curved surfaces of the lens are put necessarily in the direction of the blurred or discolored lines of the dial. Such cylinder glasses alone can give rest to the weary muscles in astigmatic eyes, for without them these irregularly curved eyes can not secure rest except during sleep.

A very useful law can be laid down for the guidance of physicians in the treatment of their eye complaining patients, viz., that headaches which come on with the use of the eyes, and which disappear during the rest which a night's sleep brings to the weary eyes, do not usually depend upon gastric, hepatic, cerebral, or uterine troubles, as is so commonly believed.

When school girls from 12 to 18 years of age complain of eyes and head aching, after hours of close application, and are not annoyed in this way during vacations or times of eye rest, inquiry is yet made by the family physician concerning the menstrual functions. Any tardiness in the appearance of this discharge, or any deviation in its amount of frequency from what the physician has established in his own mind as the normal, is deemed too often a sufficient and satisfactory explanation for all the head and eye discomforts. According to their theory when the monthly discharge becomes regular, the head and eye troubles will disappear; but permanent relief does not come as was expected. When young men complain of these identical symptoms of eye pains and headache after hours of study, I sometimes wonder why, from professional habit, their menstrual functions should not be also inquired about, for the same explanation might as truthfully be accepted for them.

In this connection I will also say that these eye-headaches, disappearing after sleep, have their origin neither in malaria nor in a bilious derangement, notwithstanding the fact that these terms are used every day in connection with them by patients and physicians. Neither quinine, calomel, morphine nor pessaries will prevent this kind of eye headache, although building up the system in feeble persons will help the eye muscles and relieve them. The careful adjustment of proper glasses, by correcting the painful muscular effort, alone will cure them. Rest is a very frequent prescription with physicians for such painful eyes. It will quiet temporarily the pain, but what permanent good can it possibly secure? When upon the use of the eyes the head aches, and when painless heads are made painful by reading, with very few exceptions, it is the abnormal curvature of the cornea which causes the eye and head pains. How can rest bring about a correction in these faulty curvatures? Might as well expect rest from walking to make a shortened leg grow to the length of the other, as to expect a shorter curve in one direction of the cornea to grow out in the dimensions of the other longer meridians by resting the eyes from reading or sewing. We can readily see

the absurdity in the leg suggestion, and yet many physicians do not see that the expectations from the eye rest is equally preposterous.

How many thousands in this country to-day are impatiently and uselessly resting eyes that pain when put to near work, when a pair of properly adjusted spectacles will correct the evil?

Nearly every day I restore some restless patient to his work, who had sought in vain relief from eye pains in rest; or I assist some ambitious person, who having acquired an enviable start in life, feels that his painful eyes have become barriers to further study and prospective promotion. Daily by the use of properly selected glasses I cure headaches of years' duration, and which have resisted every species of medication. In so doing I have often been able to satisfy anxious patients that their brains, stomachs, livers, kidneys, or uteri have been accused wrongfully of producing the headaches, and that these have ever been innocent and healthy organs. The following remarks I have frequently heard from patients to whom I had recently prescribed astigmatic glasses. "For one week, ever since I put on the spectacles, I have been free from headache, and it is a freedom that I have not had before for years.

Although most a stigmatic eyes cause headache and eye pains, if the eyes are much used in fine work, especially by artificial light, I find cases of faulty refraction from astigmatism in which headache is not and has never been an annoying symptom.

In some astigmatic persons a strong muscular development enables them to conceal the corneal irregularity. Should any disturbance of the system temporarily weaken this muscular power, the eye muscles, along with the other muscles of the body, are weakened and unable to keep up their work, then are pains induced. If it be a bilious or gastric disturbance, its temporary influence over the muscles is mistaken for the actual cause of the headache, when it is only the indirect cause, permitting the latent trouble to become manifest. If the astigmatism did not exist in a concealed form, there would be no headache on use of the eyes during these general disturbances.

Again in nervous persons, especially in females, I have found great suffering about the head and eyes, clearly traceable to a small degree of irregular refraction, and promptly corrected by the constant use of carefully adjusted cylinder lenses.

The report of a case with which I will close this paper is one of unusual severity in effects, although a high degree of astigmatism did not exist. Such extreme discomfort as this lady suffered is fortunately not often found. The case is also peculiar from the length of time that she suffered before her eyes were suspected of being the source of the trouble. In this age of diffusion of medical knowledge, by means of many medical journals, physicians are on the alert to distinguish eye headaches from the headaches caused by other organic disturbances, and usually at an early day invoke the aid of the specialist in eye diseases to remedy the evil. In her own case, several years elapsed in testing newspaper remedies for headache, having lost faith in physicians from her earlier medical experiences, The case, however, will illustrate the efficacy of proper glasses in relieving even years of suffering.

Mrs. F., aged 38, the mother of several children, has been a martyr to headaches since childhood and during the past 13 years, since her married life, has been often nearly crazy from them. Any close eye work, continued for even a short time, would send her to bed with a raging headache. On an average, she has spent one day out of every week in a dark room, and that has been kept up for months at a time. If she felt bright and applied herself to complete any piece of needle work, so necessary with a growing family, she never failed to pay the penalty in severe head and eye suffering. When she came first to my office, she frankly told me that she had come because she had been advised, not that she expected any benefit, for she had no faith in any curative agent whatever, having years since exhausted them all without finding any relief. She gave me this very clear history of her case. "Dr. A. has always been my family physician, and in him I have every confidence. Having in my early married life exhausted his skill in vain attempts at relieving me of my suffering, he gave up treating me for these headaches many years ago. Under his advice I had consulted Prof. B, you know him to be one of our leading practitioners. He acknowledged that I had a good family doctor, but thought that something might have been overlooked, and that he hoped to find me a remedy. He varied his medicines, as one after another failed to procure me relief, and finally he advised a visit to the seashore. I spent six weeks at Cape May, and while there rested my eyes from all work, eschewing both reading and sewing. I returned home with body invigorated by the salt baths, and was free from pain. As soon as I commenced using my eyes in sewing, all the old distressing symptoms returned. My family physician and friend, seeing me in some of these terrible attacks, advised me to consult another physician, Prof. C, who you know has the reputation of being a very skilful physician. He had me under his professional care all winter and spring. Summer found me no better. Any use of the eyes in sewing or reading sent me to bed with twenty-four hours of suffering before me. He finally advised a course of mineral waters, and sent me to the White Sulphur Springs of Virginia. There I spent two months, which improved me much in health. In the fall I returned to Baltimore looking and feeling well. A very few days of housekeeping showed me that the long rest at the springs and the drinking of sulphur waters had brought me to no permanent good. My head at times ached as badly as ever.

"I now despaired of ever getting relief, because

I had sought the best medical advice at my command, and all to no purpose. Some of my friends, in their anxiety to see me cured of the daily suffering, advised me to try homeopathy. I accepted the suggestion and sent for Dr. D. He examined carefully into my case, and said that he could cure me. With these assurances from the new physician, my feeling barometer at once went up and my future prospects brightened. I entered actively into the course of medication mapped out by him. I took his mixtures hour by hour, for days and weeks, my faith growing unfortunately less and less with the monotony of the dosing. Finally as my headaches were not mitigated even by the long continued treatment, I gave up all hope, and dismissed the homeopathic physician.

"I felt that my case was now beyond medical cure, and I became despondent and rash. In my anxiety to secure relief I have tried anything that anyone would suggest. I believe that during the last six years I have taken every quack remedy warranted to cure headaches that I could hear of, as published in the newspapers, and my many friends have kept me well supplied with this kind of information. Recently I have heard how Miss E——has been cured of constant headaches by wearing eye glasses, and my friends have suggested that I have my eye examined. On the principle that in my desire to escape this bodily torment, I have been willing to try every treatment that has been brought to my notice, I have come to have you examine my painful eyes, but I must tell you candidly that I expect no benefit, and have given up all hope of obtaining relief."

Upon examination I found that she could read the finest print, but only for a few lines. Her distant vision was also acute. Fixing the eyes upon the clock dial trial card for a short time caused pain in the head and eyes, and also induced a feeling of nausea. I found that she could clearly see the vertical lines of the test card, but only dimly those which were horizontally placed. I selected from the trial case a magnifying lens which would make these blurred lines perfectly clear, for each eye, and finding the corresponding cylinders adjusted them at the proper angle in a trial frame. These I placed before her eyes. To her surprise not only did all the lines come out with equal boldness of color and of definition, but she found herself able to stare at them without inconvenience. After she had worn the glasses for some minutes, feeling great comfort from them, I removed the frames, when immediately the nausea previously experienced came on. The restoration of the glasses brought back strength of vision and comfort. I prescribed for her the proper cylinder lenses set at an angle of 180°, in spectacle frames to be constantly worn. So anxious was she to test these spectacles that on her way home from my office she called at the optician's, and remained in the store while the glasses were being fitted to the frames which she had selected. When they were ready, she put them on at once, and sallied forth. Before getting home she found herself walking with a degree of comfort which she had not known for months.

The rapid improvement commenced from that hour. Her headache disappeared within three weeks, by the rest which her eyes enjoyed from the constant wearing of the spectacles. Now she makes her eyes do just what she pleases. Her constant headaches are bygones, and are only remembered from the years of torture through which she had passed. Her face had become bright and free from care, as her head is free from pains. Her relief by such apparently simple means, and without medicines, is called a miracle by herself and a marvel to her friends. No amount of rest without these cylinder glasses could have effected this cure from suffering. It had been thoroughly tested, and had been found as useless as the many prescriptions with which during many years her body had been drugged. Cylinder glasses alone could and they have cured her.

NEURASTHENIA.*

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The term "neurasthenia" was first introduced by the late Dr. G. Beard, of New York, to denote a peculiar functional disease of the nervous system. One of the principal reasons he assigns for the neglect of this nervous disorder by previous observers is the great difficulty of analysis and classification of its symptoms. Neurasthenia, he maintains, is exceedingly common in the United States, owing to the widespread influences that favor its development. Perhaps the frequency of its occurrence in this country is only apparent, for, as he remarks, Americans seek medical aid for the relief of ailments which, as a general rule, cause less anxiety to European people. Dr. Beard's first publications on this subject encountered much adverse criticism at home. Nervousness, or rather nervous weakness, it was said, had always been recognized as a morbid condition, giving rise to a host of symptoms, clinically distinguished by designations in accordance with their supposed dependence on special disturbing causes. Every one is familiar with the phrases such as cerebral anæmia, spinal irritation, the neuropathic diathesis, irritable weakness, oxaluria, etc., etc. Bouchut's nervousism not only included all the said designations, but embraced every possible functional disease of the nervous system. The Griffith brothers had before him indulged in analogous exaggeration of the pathological importance of the

* Read before the Baltimore Academy of Medicine, January 18, 1887.

so-called spinal irritation. Dr. Beard has fallen into a similar error in claiming for neurasthenia a multiplicity and variety of symptoms, which would hardly justify the attempt to set up any other species of functional nervous disease. But the merit can not be denied to him that he opened a new line of investigation fertile of practical results. Every busy practitioner will admit that he frequently meets with obscure and anomalous symptoms, which he finds difficult to refer to any individual disease with which he is conversant. If the patient be a female, and the morbid phenomena point to disturbance of sensory or motor functions, independent of any tangible affection, he is very likely to suspect hysteria. Supposing the patient is of the male sex, he will probably be tempted to seek for the cause in some disorder of the nervous system. It is curious to notice in this connection the colloquial change the word nervous has undergone. Originally it implied a vigorous quality, and we still speak of the nervous style of a writer. We now signalize a person as nervous when he is easily agitated or morbidly impressible. Experience did not fail to teach what physiology leads to expect, that numerous and diversified disorders of the nervous system are traceable to the debilitation influences of physical over-exertion and mental strain. The word nervousness is at any-rate an unscientific expression. Dr. Beard deserves, therefore, much credit for having drawn attention to the great prevalence of nervous exhaustion and the many disguises it may assume.

Neurasthenia belongs to a group of neurotic diseases, having in common with all of them transmissibility and a tendency to appear under different forms, not only in different individuals, but in the members of the same family.

A recent German writer* indulges in some curious speculation concerning the important role which neurasthenia has played in shaping the destinies of races and nations. He says, "when historians speak of the degeneracy and effeminency of celebrated people of the past, they only express in other terms the physical and mental deterioration of those people. That the nervous system received the chief brunt of the injurious influences which brought about such a change, may be inferred from its physiology. Thus the decadence of the Roman power dated from the introduction of luxurious habits and profligate manners. These causes undoubtedly tend to undermine the vigor of physical and mental health. Dr. Beard in the same strain warns his countrymen to take care of the nervous system. But be this as it may, when we come nearer our own time, we see many influences at work bearing heavily on the integrity of the nervous apparatus. There is the mental strain which the hot race for wealth and distinction imposes; the unremitting toil to secure a competency; the anxiety and worry of those engaged in public life; the painful efforts to keep up appearances; the vicissitudes of fortune; the heart-burnings, the disappointments, and the numerous penalties we pay for our high-pressure civilization.

If neurasthenia, as Dr. Beard will have it, has picked out our country for its special visitations, it can only be that the etiological factors of this malady are more intensified among us than anywhere else. He refers to Russia, where in contrast with the United States, France, England and Germany the occurrence of neurasthenia is generally believed to be almost unknown. The Russian novelist Turgeyew does not share in this opinion. Many of his life-pictures of the different strata of Russian society give evidences of physical deterioration and premature mental decay.

As neurasthenia sometimes rapidly develops, it must be assumed that such an occurrence depends on an exciting cause that suddenly overwhelms the nervous system. In general, however, the disorder comes on slowly, and is probably the final result of a combination of causes, that act as a drain upon the nerve force. This characterization of the pathology of neurasthenia serves to explain the absence of a destructive lesion, the multiplicity and purely subjective nature of its symptoms. Taking for granted that nervous exhaustion is the essential condition underlying the clinical manifestations of neurasthenia, it must necessarily happen that the energy of all the bodily functions subject to nervous influence will be lowered. Such a state of the general system labors under the disadvantage of losing its various powers, and in consequence that morbid excitability becomes established, which goes by the name of irritable weakness.

An enfeebled, nervous apparatus is also incapable of offering adequate resistance to morbific causes that would otherwise exert but little influence, hence, the numerous ill-defined ailments of which neurasthenic patients constantly complain. Moreover, as the neurasthenic diathesis occurs in every conceivable grade of intensity, it is easy to understand why many of its symptoms are not considered outside the limits of health. Finally, it must not be forgotton, that the insufficient control exercised by the higher nerve centres leads to perversions and aberrations what constitute the most singular phenomena of neurasthenia.

It is usual to make the division of cerebral and spinal neurasthenia. As observed in actual practice, the symptoms of both forms of the disorder are frequently blended.

Among the cerebral symptoms of neurasthenia, none is more conspicious and constant than headache. Many instances of so-called sick-headache are of a neurasthenic origin. Of greater significance is a peculiar distressing sensation of the head, which patients compare to the feeling experienced when some heavy body is pressed on the vertex. A young artist consulted me some time ago for the relief of just such a symptom which he described to resemble the sensation as if his head were held in a vice. He had abandoned his profession on account of this complaint,

* Die Neurasthenia, by Prof. Rudolph Arndt.

which although it did not amount to actual pain was nevertheless of an unbearable nature.* The scalp in neurasthenia is exceedingly sensitive to the touch so that the use of the comb and brush causes pain. Disorders of the special senses are very common, consisting of flickering before the eyes, muscæ volutantes, asthenopia, noises in the ears, a perverted smell, and a sour pasty taste in the mouth. Sleep is much disturbed by terrifying dreams. Many patients declare they pass vigilant nights for weeks.

The psychical symptoms of neurasthenia usually partake of a depressing character. Sometimes they amount to utter despondency or melancholia. More frequently the mental irritability shows itself in curt answers, in exhibitions of a morose and peevish temper, and not seldom in a disagreeable selfishness. Probably the desire of subduing or chasing away the moods and vapors, of which the patients themselves are conscious, is one of the causes that frequently leads them to resort to alcoholic stimulants and narcotics. When such patients fall into the habit of reflecting much on their unpleasant feelings they are sure to become confirmed hypochondriacs.

Morbid fears constitute another set of symptoms, which occasionally plague the neurasthenic. Agrophobia, or the fear of open places is most frequently observed; claustrophobia or the fear of narrow places; anthrophobia, or the fear of meeting crowds of people; mysophobia, or the fear of contamination, come less frequently under notice. A variety of these morbid fears I have observed in one of my patients, which I have not yet seen mentioned. A middle aged gentleman, who had been unfortunate in stock speculations, and had suffered for many years from bleeding piles, kept himself in a constant state of misery from self reproach because he blamed the death of one of his friends to catching cold, which might have been prevented if he had not kept his friend standing for a considerable time in a cold draught of air during an interview. When my neurasthenic patient takes a walk, he constantly looks out for some substances on the pavement that may possibly cause people to slip, and fall. Should he find the end of a nail sticking out in the buildings he passes, he immediately sets about to knock it in. He stops to adjust a loose brick in the sidewalk, and he has been known to give notice to owners of lumber yards to remove a piece of timber that happens to project from the pile. A very strange neurasthenic symptom among patients of education and culture is the brooding over the insolvable problems of the universe, or some puzzling metaphysical question. Such unbidden thoughts incessantly harrass them, however much they may try to banish them from their minds. But the saddest of all the psychical manifestations of the disorder is the tendency to drift into some debasing vice. The low appetites and propensities appear to gain the mastery over the diminished resistence of the moral power.

An enormous array of symptoms is attributed to the spinal form of anæsthesia. This is due to the extent and variety of functional disturbances resulting from an unstable and irritable condition of the spinal nerve centres. There are few neurasthenic patients who do not suffer from excentric neuralgic pains and muscular weakness of the lower extremities. Real paralysis does not occur, but there is a constant feeling of fatigue and a desire for rest. Patients feel weary and exhausted after ordinary exertions. Lumbar or sacral pain seems to be never absent. The general sensibility is heightened. Slight pressure of superficial nerves causes tingling; the contact of gold substances produces pain. There is a sensation of burning in the palms of the hands and soles of the feet. Neurasthenic females complain that their shoes press too tightly, and their dresses make them feel uncomfortable, all of which is provoking to trades-people, who despair to please such customers. The reflex excitability is augmented. Micturition and defecation may in consequence be attended with much discomfort. Muscular hyperæsthesia causes twitching of muscles, and painful movement of the joints. Paræsthetic symptoms are felt everywhere, consisting of numbness and the sensations of pricking and formication. Vasomoter disturbances bring on fitful flushings of the face and partial sweatings. I remember the case of a young shop-girl, who had broken down in health, and became the victim of a large number of neurasthenic symptoms. She had frequent attacks of palpitation of the heart, and constricting pain about the chest. These attacks were ushered in by extreme reddening of the right ear and neighboring part of the cheek. The same side of the face broke out afterwards in a profuse perspiration. The respiratory symptoms are sometimes of an alarming character, consisting of embarrassed breathing and a choking sensation, attended by a tumultuous action of the heart. The gastric disturbance witnessed in neurasthenia constitutes the so-called "nervous dyspepsia," which is common in overworked clerks and seamstresses, and no less also among people in different walks of life, that impose varied hardships and the deprivation of the required rest and sleep. Such a dyspepsia baffles the usual remedies, unless a change of habits and pursuits be adopted.

It is hardly necessary to mention that the diagnosis of neurasthenia should not be lightly made. Chronic and progressive diseases, in their early stages, often give no other intimation of their existence than the evidence of a declining state of the general health. The nervous depression, which is then sure to ensue, is liable to lend a neurotic feature to the ill-defined symptoms, depending on

* Dr. F. Runge published in the *Archiv. fur Psychiatrie*, (vi B.) a series of cases under the caption of *Kopfdruck* (head pressure) which presents in many particulars the clinical features of neurasthenia. In nearly half of the cases the etiology embraced conditions and circumstances which are known to induce nervous exhaustion.

the undeveloped disease, and the more so, if the patient is constitutionally predisposed to nervous affections. On the other side there is a risk to mistake neurasthenic symptoms for serious organic trouble. The experienced physician will find no great difficulty to distinguish neurasthenia from allied nervous disorders, though it must be confessed that the pictures presented by this class of maladies are so frequently confusing by their varigated coloring, or so frequently change into dissolving views, that their distinction often turns upon the choice of a phrase.

There is a great scope for the display of tact and judgment in the treatment of neurasthenia. The number and complexity of its symptoms, their fluctuation and proneness to relapses after encouraging improvements, heavily tax the therapeutical resources of the attending physician. He would do well to take the patient into his confidence, should there exist the least reason to believe that preventable etiological factors are at work, which on being abandoned or removed will materially assist the treatment. The patient may either require absolute rest and quiet, or to be benefitted by exercise that does not fatigue. The recuperative influence of mountain air or a visit to the sea shore may, under circumstances, be indispensible. Dr. Beard says he has seldom found general anæmia associated with neurasthenia. My experience induces me to differ from him. A judicious course of tonic remedies is often of great value in long standing cases. For the restoration of the muscular vigor, as Dr. Beard has indicated nothing can surpass the refreshing effects of general faradization. After a number of trials with various remedies, which stand in repute for the relief of nervous headache, I give now the preference in the neurasthenic variety to a combination of ether and the tincture of cannabis indica, in doses of twenty drops of the former and ten of the latter. Sometimes these remedies act better after a good night's rest has been obtained from a full dose of chloral hydrate. Great caution is necessary in the administration of opium, or any of its alkaloids, for fear of inducing a disastrous habit, to which neurasthenic patients are particularly inclined. The practice of giving now large and repeated doses of the bromides is open to much less objection. In regard to arsenic, phosphorus and the salts of copper and zinc, which are empirically ordered in neurotic affections, I cannot say anything of a positive character concerning their employment in the treatment of neurasthenia.—*Maryland Medical Journal.*

HOW "BRIGHT'S DISEASE" COMES ABOUT.

By J. Milner Fothergill, M. D., London.

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When the late Dr. Richard Bright, F. R. S., stood with a tablespoonful of urine in the flame of a candle, watching the albuminous cloud forming, he little surmised what a new pathological continent was thus being brought to our knowledge. He observed dropsy, and found the urine albuminous, and diagnosed disease of the kidneys. It was a shrewd inference.

His original cases are of high interest, and his colored plates could not but attract attention. On studying them, they give one the impression that the cases were instances of the subjects of chronic Bright's disease, who had got acute renal trouble, superimposed upon old standing mischief. In such cases the albuminuria would be pronounced. Further researches taught Dr. Bright something of the relations of the kidney trouble to the enlarged heart found in the subjects of vaso-renal change.

Since then, the matter has progressed in two totally opposite directions. It has undergone a process of evolution and a certain involution. The facility which the test-tube offers for testing the urine has been a temptation which many minds have been unable to resist. Taught at the hospital to watch the reaction of the urine under heat and nitric acid (or any other re-agent the teacher chose to employ) in cases of actual renal disease, and with the importance of such testing thoroughly drilled into him, in order to make a good appearance before his examiners, many a student has entered practice with the firm conviction that albuminuria was pathognomonic of renal disease. The consequences were that many a person was made unnecessarily miserable, including medical men themselves, when, by some accident, they discovered albumen in their urine. Too exclusive reliance upon one phenomenon in complex cases is apt every now and again to be an *ignus fatuus*.

No man who is worthy of his profession would make the discovery that a certain patient's urine contained albumen, without at once giving the case his best consideration. But to leap at one bound to the conclusion that the condition was necessarily due to disease in the kidney, is a feat in saltation of a rash and dangerous character. Albeit it is often accomplished, thoughtlessly, recklessly, wantonly, from a combination of haste and ignorance; and possibly at times from a constitutional timidity, tending only to see the dark side of everything.

This may seem putting it strongly. But is it stronger than the facts warrant? Richard Bright observed the dropsy first, and then tested the urine. He did not test the urine, and then forget the dropsical factor, as has been done since his day over and over again. Such, then, is the involution, which has gone on in the matter of the diagnosis of Bright's disease.

On the other hand, great progress has been made by an innumerable band of workers in the new land opened up to us by Bright. He stood on the threshold, and from thence a host has advanced,

which has ever gathered force. Sir Robert Christison, M. Solon, Traube, were observers who led the van. The associations of a large left ventricle and a loud aortic second sound with chronic kidney disease, were generally recognized. Then came a notable discussion between Prof. George Johnson on the one part, and Sir William Gull and Dr. Gawen Sutton on the other part; and, as nothing has such an attraction for the Anglo-Saxon mind as a fight, the attention of the profession was attracted towards the condition of, and the changes in, the arterioles. The consequences of this again led to the utilization of the sphygmograph, and to the establishment of the fact that the arterial blood pressure is raised in the condition known as chronic Bright's disease. From such sphygmographic evidence the late Dr. Mahomed proceeded to make the diagnosis of the chronic vaso-renal change in the absence of albuminuria. He considered it possible to establish a valid diagnosis in cases where there was no albumen in the urine. His position was a widely different one from that which makes albuminuria and interstitial nephritis equivalent and convertible terms.

We now possess a comparatively wide grasp of the widespread change in heart, artery, and kidney, which so commonly ends in dropsy, but which has a large variety of final endings. We know that cases differ widely. In one, the condition of the kidneys may be the most prominent matter; while in others, the kidneys lie latent, and the interest centres round the heart. In another case, articular gout may mask all else to the superficial observer. Yet each may be a true case of vaso-renal change, presenting, however, different aspects of that change.

What starts the widespread change which is really an abbreviation of the changes which occur as advanced life passes into old age? It was due, so Prof. Hayles Walshe declared in 1849, to the condition of the blood circulating through the kidneys. Prof. George Johnson held: "Renal degeneration is a consequence of the long-continued elimination of products of faulty digestion through the kidneys;" and emphasized the view by employing italics. Then Dr. Garrod, the authority on gout, held gout to be due to "a loss of power (temporary or permanent) in the uric acid excreting function of the kidneys;" and "that gouty inflammation is often set up in the interior structure of the kidney, accompanied with deposits, not merely within the tubuli uriniferi, but in the fibrous structure itself."

It is useless, or rather needless, to make further quotations from authorities. The view now held is that the presence of uric acid and urates in excess in the blood circulating through the kidneys acts as an irritant, and (faster or slower, sooner or later) excites in them a growth of connective tissue, which destroys the other and higher structures, ultimately crippling the organs till they become inadequate to carry on their function as depurators of the blood. (Possibly other products of albumen metamorphosis may play a part.) Kidneys constructed to cast out a fluid urine containing the highly soluble urea are irritated and injured by the output of the comparatively insoluble uric acid. Interstitial nephritis is, then, one outcome of the reversion of the liver to the early uric acid formation of the bird and reptile. We have got another link further back in the chain of morbid sequences.

The next consideration is, what causes the liver of the bimana to so revert to the earlier formation?

We are all familiar with the results of high living in the production of gout. We all know that the poison of gout is uric acid. The reversion of the liver to the uric acid formation with the morbid outcomes thereof is well known to the most of us as "rich man's gout." That the cirrhotic or granular or gouty kidney is common with gout is evinced by the term "gouty" being applied to the contracted kidney.

But how do we account for the phenomenon known as "poor man's gout," the undoubted gout connected with the articulations, which is found in persons of spare habit and most moderate gastronomic performances, especially as regards animal food? Up to recently this malady has been a recognized crux; but the view of lithiasis being a reversion to the primitive uric acid formation brought "poor man's gout" into the daylight. Dr. Budd talked of an "insufficient" liver as regards a liver crippled by disease in it. A view indorsed by Dr. Murchison, the well-known authority on the liver, who goes on: "In others the liver seems only just capable of performing its functions under the most favorable conditions, and it at once breaks down under adverse circumstances of diet, habits, or climate. This innate weakness of the liver is often inherited." The congenital or inherited insufficient liver reveals its "innate weakness" upon slight provocation. But whether it is a primarily competent liver breaking down under the burden imposed upon it by the palate, or the congenitally insufficient liver, which is unequal to its functions, the result is the same, viz., reversion to the primitive uric acid formation. Rich man's gout and poor man's gout alike, then, depend upon the existence of an excess of uric acid in the blood, no matter how brought about. It *is* there.

The reversion of the liver has two distinct sets of casual relations, The first, or "rich man's gout," is too well known to need further reference to it.

But to the other, the reversion of the liver from injury done to it, or "innate weakness," is a matter worthy of our most attentive thought. The influence of the mind upon the liver was recognized by the ancients as regards jaundice, and in Germany, at the present day, this causal relation of jaundice is generally recognized. The effect of the mind upon secreting glands is seen in tears; and in the salivary glands by the Hindoo

practice of detecting a thief in a household by placing some rice in the mouth of all. The thief's mouth alone is dry, while the mouths of all the rest are moist. It is not in jaundice merely that mental causes of hepatic disturbance are seen. Plenty of people know that mental excitement and still more perturbation upset their livers. They cannot afford to be angry. Worry and grief produce emaciation, even if food be taken. *Icterus ex motu animi* is readily seen from the altered hue of the skin. The other hepatic disturbances are not so obvious to the eye. Still the wan, worn, wasted expression of those who have undergone long and severe mental worry or distress is readily recognized by even ordinary observers. The late Dr. W. B. Carpenter pointed out how melancholy and jealousy had a malign influence upon the liver. Dr. Clifford Albut has told of "the mental causes of Bright's disease." While Dr. Charles Creighton, in speaking of the relation of the mind to the glands, says: "The lachrymal and salivary glands afford, perhaps, the most striking examples. But the wave of emotional disturbance spreads widely over the viscera, and certainly does not exempt the liver, although the action of the feelings upon the liver is, perhaps, less familiar to us than the reaction of the liver upon the feelings and temper." As to the writer, he recently contributed a series of articles to "health," entitled "Mind and Liver," which have since been published in collected form by Lea Brothers of Philadelphia. And the same opinions are held by a great many who have not, however, published them.

The hard, keen brain-toiler is liable to derange his viscera, and his liver reverts to the uric acid formation as years roll on. Not only that, but he begets children with congenitally insufficient livers, *the innate weakness of Murchison*. In some cases urates are seen in childhood, and vesical calculus is not infrequent in babies. More commonly, however, it begins to show itself after puberty. A lady of this type will present the following characteristics and symptoms: She is a bright, sensitive, high-spirited and usually high-sculed, unselfish creature; light in the bone, commonly petite, muscles not large, but firm, and when she shakes hands her grip is that of decision, as are the tones of her voice; her features are regular and mobile, often small; her susceptibilities are keen, and so are her special senses. She is capable of great devotion, and in her earnestness is usually self-forgetful; she is emotional, but not demonstrative, and is a distinct neurotic. As to her complaint, she has indigestion accompanied by acidity and flatulence, often alternating; commonly some constipation; she is liable to attacks of hemicrania, or migraine, or "face-ache," as she calls it, usually unilateral and on the right side, accompanied by sparks or "dazzles," often ending in vomiting; and these migrainous attacks are accompanied by great vesical irritability, and constant call to make water; she has fits of palpitation, and at other times failure of the heart's action, differing from syncope in that there is no loss of consciousness, and she feels unutterable sensations, of which the expression of the eye mutely tells. She constantly has sediments in her water, though a small eater, and especially avoiding animal food. She has an insufficient liver which Dame Nature protects by a small fastidious appetite, and a dainty palate, despite which it reverts to the uric acid formation. She is a typical instance of the adage, "The sword will wear out the scabbard." She has no mercy upon her body, and her complaint is that it is very hard that she cannot do as others do. If she goes to the theatre or concert, she so thoroughly enjoys it all that probably she is in bed next day with migraine. Her old nurse speaks of her as "all up and down." Either volatile and gay, or irritable and depressed. Somatically these neurotics of the Arab type are the grey-hounds of the human race. Light, active, and nimble; but pyschically greatly superior to these canine representatives.

She is to be found everywhere, but most markedly in towns. She is a charming patient; but rarely yields flattering results of treatment. She is acute and capable of taking care of any one but herself. She is in my experience commonly an American lady; and in most instances tells of the energetic, long-sustained, and usually successful efforts of her father. "The fathers have eaten sour grapes, and the children's teeth are set on edge." Her father carried on severe mental toil at the expense of his viscera; his daughter comes into the world framed on his pattern. In both we find reversion to the uric acid formation, and, of course, with that the whole consequences thereof.

And one of the direct outcomes of uric acid in excess in the blood is interstitial nephritis, commonly termed "Chronic Bright's Disease."—*Phil. Medical Register.*

DIET IN THE TREATMENT OF EPILEPSY.

By A. E. Bridges, London, B. A. and B. SC. of Paris, M. D., Edin.

Epilepsy, like hydrophobia, a disorder of the nervous system without pathognomonic microscopic lesion, has for many years possessed a fascination for the scientific pathologist, who, according to his individual experience, and irrespective of that of his brethren, has sought to classify the disease, bestowing on each class a formidable scientific name.

Ignoring such classifications, I shall, for the purposes of chemical observation, and more especially for that of treatment, divide epilepsy into the following four great classes:

1st. Simple epilepsy—rare in women.

2d. Mixed epilepsy (hystero-epilepsy)—rare in men.

3d. Epileptiform seizures—result, of course from brain lesion, injury to head, tumor of cerebrum, etc.

4th. Reflex epilepsy—common in children, less frequent in women, rare in men.

My observations, as regards the effect of diet in epilepsy, will refer almost exclusively to class 1, the most hopeless, and, therefore, from a medical standpoint, the most interesting form of the disease. They will, however, apply in a sense, restricted according to the peculiarities of each case, to the other classes which I have enumerated.

The frequent occurrence of the convulsive seizures which occur in the course of epilepsy is due, there is every reason to suppose, to an explosion of what we are compelled to call, for want of a better term, nerve force.

Now, we know that of the four main elements of which the human body is composed, carbon, hydrogen, oxygen and phosphorus, nitrogen is the one which has the fewest and weakest chemical affinities, and we also know that exactly, by reason of this chemical peculiarity, nitrogen is a necessary element in all the most powerful explosives. We have, therefore, just reason to conclude that it plays a very important part in those nerve explosions of which we have spoken. It is then quite as reasonable to limit in epilepsy the amount of nitrogen supplied by the medium of our food stuffs as it is to limit the supply of articles containing sugar and starch in diabetes mellitus. Not only, however, may we limit the actual amount of nitrogen taken, but we may give it in that form in which it is apparently digested and broken up in the easiest manner. It is a fairly well-attested scientific fact, and one that accords with personal experience, that the nitrogenous compounds which we use as foods, and which are supplied from the vegetable kingdom, are more easily broken up and assimilated by the economy than those derived from the animal kingdom. The reason of this difference is one not very easily explained. The best explanation, perhaps, that can be offered is that in regard to the digestibility of foods in general, it may be said that the more concentrated a food is the more difficult is it of assimilation. Eggs and cheese, two substances exceptionally rich in nitrogen, are familar proofs of this. The same, to a lesser extent, may be said of meat. I am well aware that peas and beans contain a larger percentage of nitrogen than meat; but, on the other hand, those substances are mixed with a far larger proportion of carbon, and, furthermore, as compared with meat, do not enter nearly so largely into ordinary vegetarian diet as does the latter in the ménu of a mixed feeder —furthermore, more water is used in their cooking, and is absorbed by them and eaten with them than is the case with meat, and they are, therefore, contrary to what we might expect at first sight, really more dilute foods than are the various fleshy articles of diet. The same applies, but with greater force, to the cereals.

My argument may, however, seem to tell against myself, for it might be said: well, since animal albuminoids are less digestible than vegetable ones, it follows that less of the first will be taken up, with the result of a decreased supply of nitrogen to the body at large. This conclusion, however, is incorrect. The result of the deficient digestion of any albuminoid is, partly at least, that imperfectly prepared peptones are liable to be absorbed into the system, and it is mainly with the further conversion of these that the liver has trouble.

I appeal from theory to practice. Take a case of feeble digestion, due to general atony, and not to any special digestive derangement, and give to that individual a meal of meat and bread, and he will very shortly afterwards develop the well known symptoms of atonic dyspepsia. Give to the same man a dish of Revalenta, of crushed-wheat meal, or of oatmeal porridge with bread, and let such meal contain exactly the same amount of nitrogen as in the one composed mainly of meat, and he will, as a rule, suffer little, if at all. This is the real secret of the enormous sale in this country of Revalenta Arabica. I have at present many dyspeptics under my care, who take that form of diet without the least inconvenience, and to whom the painless digestion of meat is apparently impossible.

Amongst substances, however, that are derived from animals, and which contain nitrogen, milk is the only one that is an exception to the above rule, and this simply because the nitrogen it contains is in a very dilute form.

We, therefore, come to this conclusion: In epilepsy we have a disease in which it is very necessary to regulate exactly the amount of nitrogen. It is also desirable that all the organs of the body, and, therefore, the stomach and liver, should be kept in as healthy a state as is possible. Vegetable nitrogenous compounds and milk and its preparations (buttermilk, skim-milk, koumiss, etc.) enable us to obtain both ends, and we, therefore, in our treatment of epilepsy, should entirely, or almost so, discard the use of flesh foods.

Even meat soups are objectionable. Though apparently very dilute they really are highly concentrated foods, the water with which the meat juice is mixed being absorbed with great rapidity by the stomach. The result is that in a few minutes after swallowing, a thickish meat jelly only is left.

Basing my deductions on the foregoing premises, I have for some time past been in the habit of treating all cases of epilepsy by the vegetarian system, though I hasten to explain that I am no vegetarian myself, nor do I recommend, as is generally done by gentlemen of that persuasion, that particular style of feeding as a sovereign preventative and sure remedy for all the ills of life.

It will scarcely be necessary to give any exact dietary which, of course, varies with the means of my patient and with his surroundings. Epileptics are of all people most anxious to be rid of their complaint, and will better follow out, at least that is *my* experience, more than any other class of patients, the rules laid down for their guidance.

All I can say is, that the greatest possible benefit is often to be derived, especially in those still retaining fair stamina, from keeping the supply of nitrogen down below that laid down as necessary for maintenance of health in the ordinary physiological hand-books. This is especially true of those who take little exercise.

With regard to the use of drugs. In the majority of cases I use none, unless, in spite of dietetic treatment and hygienic surroundings, the disease progresses rapidly. I avoid the bromides. The apparent benefit derived from them is more than overbalanced by their disastrous permanent effect on the nervous system.

Iodide of potassium, 10 to 20 grains, at bedtime, is my favorite prescription, even in cases where I do not suspect syphilis.

Belladonna and digitalis I also find in certain cases to be very useful, and free from most of the drawbacks which attach to the bromides.

Stomachics—bismuth, with rhubarb and soda—are often, especially at the onset of the disease, of great service.

Of twenty-three cases belonging to class 1, which I treated on what I may call a vegetarian and milk system, nineteen were markedly benefitted. Seven of the nineteen were apparently cured, and eight were able to resume occupations which they had, by reason of the frequency of the fits, been compelled to abandon. The other four of those who derived benefit had a considerable diminution in the number of fits.

Of 118 cases belonging to classes 2, 3 and 4, about half received decided benefit; but, unless I give my full statistics, which, I fear, would be too great a call on your space, I cannot in cases where the causation of the epilepsy varies so widely as it does in such a group, draw any convincing deductions worthy the attention of your readers.—*Journal of Reconstructives.*

TREATMENT OF RHEUMATISM IN THE JEFFERSON COLLEGE HOSPITAL.

Dr. DaCosta treats his cases of acute rheumatic fever, as a rule, with salicylic acid, about a drachm in twenty-four hours; he does this especially in the cases of active, frank character, in which the joint affection is decided. Where marked cardiac complication exists, he greatly prefers the alkaline plan of treatment; indeed, has little faith in the use of salicylic acid either to prevent cardiac complications or to remove them. Nor does he, in any case, continue salicylic acid or the salicylates if no impression is made on the rheumatic malady in three or four days. When the remedy does good at all, his experience is that it does good quickly.

In cases of acute or subacute muscular rheumatism, or in subacute articular rheumatism with much pain and only moderate swelling of the joints, he often employs bromide of ammonium, or, if this fail nitrate of potassium. He uses opium sparingly, and generally confines it to a moderate dose or two of Dover's powder, given at night.

He strongly insists, no matter what plan of treatment be adopted, on the addition of quinine, from twelve to sixteen grains daily, as soon as the more active symptoms have subsided, believing that thereby the patient's strength is sustained and relapse prevented.

Formstincture of chloride of iron he has seen no good, except in pyæmic rheumatism or in kindred-forms of rheumatism.

Locally, he uses little, enveloping the swollen joints, if very painful, in a thin layer of cotton-wool; where the joints are very much swollen he envelops themin cloth wrung out in a strong solution of nitrate of potassium, with morphia added.

The diet is always blank and unstimulating, chiefly milk, farinaceous substances, and very moderate amounts of broths, eggs, and fish. Alcohol is not given,except in the so-called "typhoid cases," in which also high temperature is generally found. —*Med. News.*

PHILADELPHIA CLINICAL SOCIETY.

STATED MEETING, FEBRUARY 25, 1887.

The President, Dr. JAMES B. WALKER, in the chair.

The President introduced the subject of

ARTIFICIAL FEEDING OF INFANTS.

The importance of the subject all will admit, and depends upon (1) the inability of the mother to afford nourishment; (2) the demands of the child for the materials for growth, repair, and heat-production; and for *protection* from indigestion and the numerous disorders of malnutrition. The prominent indications of the non-agreement of any food are excessive colic, vomiting, diarrhœa. The results are seen in losses of flesh, strength, vivacity, and color, non-development of general body or of parts, as of teeth, retardation of infantile accomplishments, psychical or physical, or even loss of those which have existed. One or many of these conditions may exist and call for attention on the part of the physician to the imperative needs of the little patient.

In choosing a diet there is no established *law*, save that the food shall be easily digested, non-irritating, and suitable for nourishment and heat-production. If the infant have been nursing its mother, the *quantity* may be alone at fault. In all such cases artificial food should be made to *supplement* and *not* to *substitute* the natural supply. The amount of artificial food must vary with each case from every alternate feeding to two or three feedings daily. Should the *quality* of the mother's milk be at fault, or should she be unable to nurse her child from other causes, a complete *substitute* must be furnished.

Here, unquestionably, the best, because furnishing the most rational substitute, is the wet-nurse. But, rational though it be, it has objections which sometimes are insurmountable. Among these are the expense incurred, the difficulty of getting one whose milk is altogether satisfactory, or, this

agreeing, the unsatisfactoriness of the individual herself, who, reins in hand, may, if inclined, drive the family to distraction. Apart from this, many mothers object to having their little ones nurse at other breasts than their own, even when the substitute is cleanly in person, character, and habits, and much more so if doubt exist, as it often must upon these scores. While not decrying wet-nurses,—indeed, while claiming that for some infants they are our only means of salvation,—the lecturer claimed that in most instances they are not indispensable.

In choosing a substitute for human milk for healthy children, the lecturer does not approve of the so-called infant-foods manufactured on a large scale, and kept on the druggist's shelves. These substances, many of which have much virtue, find a sphere in the management of the sick, but as a rule may be eschewed in arranging a food for the well.

For most babies condensed milk answers best, for the first three to six months of life. Here again a choice may be made. There are several varieties of this food, most of which are supplied in quantities to grocers and druggists, and lie an indefinite time on the shelf or counter, during which time they are liable to deterioration. This is not a matter of theory, but has been proved in more than one instance by an attack of severe indigestion and diarrhœa on opening a new can. The brand most satisfactory in the lecturer's experience is Canfield's, which is manufactured in Philadelphia, and is for sale only at the manufacturer's office, where its freshness and purity are guaranteed. Or, if the sweetness of the condensed milk be an objection in an individual case, the "Evaporated Cream," a partially condensed milk, prepared by the same firm, may be used, having it served fresh every day or every alternate day. Unquestionably, condensed milk is preferable for the young infant to the fresh (?) milk furnished by the milkman in our large cities.

If a child taking condensed milk is constipated, a small quantity of Mellin's, Horlick's, or Nestle's food may be used in each bottle, and will usually be all-sufficient.

At least until a food has proved satisfactory, the infant should be weighed at the end of each week, and should gain from three or four ounces to a pound weekly. If severe colic, vomiting, or diarrhœa occur without cause, such as teething, exposure, etc., some change is indicated. This will usually be the case, where condensed milk is the diet, somewhere from the third to the eighth month. The addition of oatmeal to the food may be all that is needed. It should be thoroughly cooked for three hours, then strained through a cloth, producing a white, semi-translucent substance, about the consistency of starch, as used by the laundress. Of this from one to three tablespoonfuls may be added to each bottle, according to the age of the child and its power of digestion. Lime-water is an important addition to the artificial food, and should be used continuously for the first ten or twelve months.

In most instances fresh cow's milk will have to be substituted for the condensed milk when the latter disagrees, or this, if obtainable pure, may be used from the first. This should be diluted to suit the age, and have added sugar, lime-water, and from a teaspoonful to two tablespoonfuls of cream to each bottle, varying the amount to suit the condition of the bowels. After the third month, or even before, some of the oatmeal-gruel, prepared as already directed, may be added. In cities, all the water used in preparing the food should have been previously boiled. Sometimes an irritable state of the bowels, induced by one of many causes, may be benefited by the substitution for a few hours of barley-water, arrowroot water, or gum-arabic water, and on resuming the milk food one of the above waters may be used as the diluent, instead of plain boiled water. Sometimes the use of peptonized milk diluted with barley-water, or the addition to the milk-food of the "Peptogenic Milk-Powder of Fairchilds, Brother & Foster, may be required for a shorter or longer period.

In the artificial feeding of infants, the plain nursing-bottle with pure rubber nipple is better than spoon-feeding, giving exercise to the masticatory apparatus, and stimulating to more rapid functional development the salivary function.

The subject was discussed by the different members, and the experience of each one proved that cow's milk in some form was the best food for a child who must be artificially fed.

Dr. Anna McAllister spoke of some interesting experiments, which had been tried at the New York Infant Asylum, under the supervision of Dr. J. Lewis Smith: where, in several autopsies on artificially-fed infants, it was found that in those fed on *starchy* food the pancreas was very small, seemingly arrested in its development; while in those fed upon *condensed milk* the organ was normal in size.—*Phil. Med. Times.*

THERAPEUTICS OF FEMALE STERILITY.

The rational treatment of female sterility is based upon a knowledge of its causation. In anæmia, chlorosis, or scrofulosis, reconstructive medication is required. Amenorrhœa, if the generative organs are normal, may yield to local stimulating applications, such as scarification of the cervix, introduction of the sound or of stem-pessaries, vaginal douches, hot foot or sitz-baths, galvanism or faradic electricity; aided by aloes, apiol, or permanganate of potassium used internally. In the amenorrhœa of corpulent women, Kisch, Martin and Rohrig extol the sulphate-of-soda waters, among which those of Marienbad have a high reputation. In this country the waters of Crab Orchard Springs in Kentucky, Bedford Springs in Pennsylvania, or Ballston Spa in New York, would probably be equally efficacious.

In endometritis, applications of tincture of iodine or of iodinized collodion to the internal

surface of the uterus are often effective. When villous endometritis is present, or the uterus still contains remnants of a previous misconception, the dull curette is indicated. In peri- or parametric exudations, hot-water vaginal douches and iodoformized tampons are useful.

Catarrhal diseases of the vagina must be treated with astringents. Kisch reports a case in which there were profuse hyperacid secretions. He directed injections of a fifteen per cent. solution of sugar to which one-tenth per cent. of caustic potassa had been added. In this solution the spermatozoa remain active for a long period. The woman became pregnant after using this injection for some time. Charrier found in two similar cases that the daily injection of a solution containing one part of albumen, with fifty-nine of phosphate of soda, in ten thousand of water, removed the acidity of the secretion, and the women conceived in the course of six weeks, although during four years of married life they had been sterile.

Gonorrhœa should be treated with germicide irrigations. The most effective are nitrate of silver (one to three thousand—one to two thousand), salicylate of sodium (one to twenty), corrosive sublimate (one to twenty thousand).

In atrophy of the uterus the galvanic and faradic currents may be used with some hope of benefit.

Vaginismus demands a careful consideration of each case. Recently cocaine in four per cent. solution painted on the vulva and vagina has been found effective. If this fail, operative measures (dilatation under anæsthesia and subsequent wearing of a plug) may be resorted to.

In cervical stenosis dilatation with tents or incision may be employed. The former method is warmly advocated by Schultz. If rigid instruments are used, the solid round dilators of Peaslee or Hegar should be chosen. The dilating instruments which act by a separation of two or more blades are by Kisch considered inappropriate. In hypertrophy of the cervix, amputation is proper; in laceration, Emmet's operation.

Atresia of the vagina does not demand treatment in the absence or defective development of the other internal generative organs.

Displacements should be appropriately treated by manual reposition and pessaries or tampons.

The accepted opinion among physiologists is that the most favorable time for conception is two or three days before the beginning, or five or eight days after the cessation, of the menstrual flow.

Kisch does not advise attempts at the artificial impregnation of the human female, as practiced by Sims and some of his followers. He closes his very interesting monograph with the caution to the physician not to be too ready to give either a favorable or an unfavorable prognosis. In the former case he may be mistaken and disappointment follow; in the latter he may be likewise err, and his judgment will then be discredited in other things.—*Phil. Medical Times.*

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MONTREAL, MAY, 1887.

We publish with this number of the RECORD the Title Page and Index for Volume XIII. This should have appeared in the October, 1885, number, but through an oversight was left out. We trust our Readers will pardon the delay on the principle of "better late than never." The Title Page and Index for Volume XIV will be published with the next (June) number of the RECORD.

COLLEGE OF PHYSICIANS AND SURGEONS, PROVINCE OF QUEBEC.

Officers for 1886–89.—Wm. H. Hingston, M.D., President; Dr. J. L. Leprohon and the Hon. Dr. Ross, Vice-Presidents; Dr. Leonidas La Rue, (Quebec) Registrar; Dr. E. P. Lachapelle, Montreal, Treasurer; Drs. F. W. Campbell, Montreal, and A. G. Belleau, Quebec, Secretaries.

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OBITUARY.

DR. JOHN FULTON, TORONTO.

On Sunday, May 15th, Dr. John Fulton of Toronto, Editor and Proprietor of the *Canada Lancet*, after a somewhat brief illness of Typhoid Pneumonia, passed to his eternal rest. Our deceased friend was a prominent man among the Medical Profession of Canada. Possessed of excellent abilities, and an indomitable energy, he worked and toiled till, we might say, almost the hour of his death. It is as a journalist that Dr. Fulton was best known, though in Victoria and Trinity College Medical Schools he filled most ably several chairs. In 1870 he started the *Canada Lancet*, having purchased the good will of the *Dominion Medical Journal*. From that time till his last illness, his energy and his abilities have been devoted to its success. The position which the *Lancet* occupies to-day is a tribute to his business capacity and his intellectual worth. Dr. Fulton was born in Western Ontario early in 1837, and was brought up on a farm, then became a school teacher, and finally entered Medicine, graduating at Victoria College, or as it was best known at that time, "Dr. Rolph's School." He subsequently passed some time in England and elsewhere, returning to Canada with the L.R.C.P. Lond., and the M.R.C.S. England. His death, at a comparatively early age, is a great public loss. To those who will feel his loss most keenly, his orphan children, we bestow our deep sympathy. Let their consolation be: "No man could have more completely done his duty, to his profession—to his country—to his God."

PERSONAL.

Dr. A. L. Smith, Professor of Medical Jurisprudence, University of Bishop's College, who has for the past two months been furthering his Clinical knowledge in the Hospitals of London, Paris, and Berlin, purposes returning to Montreal by the Beaver Line S.S., Lake Ontario, due here about June 21st.

Dr. A. P. Scott (Bishop's 1887) has left for London, Eng., where he purposes residing for some time to walk the hospitals, and also to take out some of the British qualifications.

Dr. W. E. Fairfield (Bishop's '87.) has started practice at Wequiock, Michigan, U.S.

Dr. A. E. Phelan, (Bishop's '87) has put out his sign at Watersmeet, Mich., U.S.A.

REVIEW.

On Fevers: Their History, Etiology, Diagnosis, Prognosis and Treatment. By ALEXANDER COLLIE, M.D., With colored plates. Philadelphia, P. Blakiston, Son & Co., 1012 Walnut street, 1887. Price $2.50.

In the preface, the fact is mentioned by the author, that the observations are for the most part founded upon over 21,000 cases, which had been personally treated by him. The work is well written, and throughout the book numerous quotations are mentioned from known writers, for the purpose of bearing out the views of the author. It contains plates, four in number, which are well executed, a dietary scale, and also formulæ from the Pharmacopœia of the London Fever Hospital. The book is well printed in large, clear type and on good paper, the whole being bound in a cloth cover, with neat gold lettering, and altogether makes a very presentable appearance.

Anæmia by FREDERICK P. HENRY, Prof. of Clinical Medicine in the Philadelphia Polyclinic, etc., etc., Philadelphia, P. Blakiston, Son & Co., 1012 Walnut street. Price 75 cents.

This is the first time that the above named subject has been systematically treated in book form, it being a reprint of a series of articles published during the last year in the Polyclinic. This little work is the result of several years' study of the blood, and the disorders consequent upon its imperfect elaboration. The facts therein stated are mostly based on the personal observations of the author. This book will, no doubt, supply a long felt want in the treatment of a very common affection.

Dose and price labels of all the drugs and preparations of the United States Pharmacopœia of 1880. By C. L. LOCHMAN, Second Edition, Philadelphia, Dunlop & Clarke, Printers, 819 and 821 Filbert street, 1887. Price in flexible muslin, $1.50.

This is the second edition of this very useful little book. It has been entirely rewritten, corrected, improved and enlarged, and contains double the number of pages of the former edition. Each label contains a lot of useful information, e.g., solubility of the chemical in water, alcohol, etc., the doses in apothecaries' weight and measure, with their equivalents in the metric system, the medical properties and many useful hints, in this way condensing in a ready form an amount of information, which could not be gained in the ordinary way without a vast amount of research. This

book should especially recommend itself to Druggists. There is also at the end of the work a description of many new remedies, which adds very much to the value of the book.

A Reference Hand-Book of the Medical Sciences: Being a complete and convenient work of reference for information upon topics belonging to the entire range of scientific and practical medicine, and consisting of a series of concise essays and brief paragraphs arranged in the alphabetical order of the topics of which they treat, prepared by writers who are experts in their respective department. Illustrated by chromo-lithographs and fine wood engravings. Edited by ALBERT H. BUCK, M.D., New York City. Vols. II. III. and IV. Wm. Wood & Co. New York, 1887.

As we mentioned in our review of volume I. of this work, it is gotten up in the style of an Encyclopedia. The task of getting up such a work must entail an immense amount of time and labor; but the author appears to be competent for the task, for he seems to have succeeded in keeping up the superior quality and style of the work, of which we take volume I. as the example. The various articles seem to be carefully prepared, are very concise, the most salient points being brought prominently to view, and the most important subjects have been treated very minutely, as suiting the style and character of the work. The chromo-lithographs are very handsome, the engravings clear and distinct, and the type, paper, and printing are all of the best workmanship, so that the volumes will make a very handsome addition to the physician's library.

The Physician's Dose and Symptom Book. By Jos. H. WYTHE, M.D., Professor of Histology and Microscopy, Cooper Medical College, San Francisco.

Seventeenth edition, completely rewritten and enlarged.

Philadelphia: P. Blakiston, Son & Co., 1012 Walnut Street.

This little work being now in its seventeenth edition proves that it must be invaluable, being especially adapted to the wants of students when grinding for examinations. It will also be of great service to the busy practitioner as a means of handy reference at such times when more elaborate works are not at hand.

A Companion to the U. S. Pharmacopœia. Being a Practical Commentary and Key to the latest edition of the Pharmacopœia. Second edition. By OSCAR OLDBERG, Pharm. D., and OTTO A. WALL, M.D., Ph. G. Octavo, 1226 pages, 650 illustrations. Muslin, $5.00; NEW YORK: WM. WOOD & COMPANY, 1887.

As this is the second edition of this well known work, it does not of a necessity require any very elaborate review, especially as most of our readers are already familiar with the scope and purpose of the book. One fact which surprises us is the absence of any comment on some of the latest remedies in general use, such as antipyrin and antifebrin, especially as the volume does not appear to be limited in size, and as other medicines, by no means in such general use, have been fully taken note of by the authors. However, the work will prove a worthy second to its elder brother, the U. S. Pharmacopœia.

Manual of Operative Surgery. By JOSEPH D. BRYANT, M.D., Professor of Anatomy and Clinical Surgery, and Associate Professor of Orthopedic Surgery in Bellevue Hospital Medical College, etc., 500 pages; 800 illustrations. New York, D. Appleton & Co., 1887.

On turning over the pages of this work, one is at once struck by the great number of the illustrations. This fact alone would recommend the book to students, for whom in truth the work was especially prepared. Another, and very important point, is the large size of the type, which renders reading for any length of time a comparatively easy matter. The wood-cuts are reprinted from some of the best standard works on Surgery, such as Ashhurst, Agnew, Gross, Erichsen, etc., and the references are clear and easily found. Altogether the work is of the best, and we predict for it a large sale.

Practical Human Anatomy, a working guide for students of medicine, and a ready reference for Surgeons and Physicians. By FANEUIL D. WEISSE, M.D., Professor of Practical and Surgical Anatomy, Medical Department of the University of the city of New York. Illustrated by 222 lettered plates, containing 331 figures. New York, William Wood & Co., 56 and 58 Lafayette Place, 1886.

This work is the very *beau-ideal* book for the student of Surgery to carry with him into the dissecting room, the plates being large and the lettering very distinct, and, in fact, the cuts are so accurate that they might really be mistaken for photographs. The author says that the work was

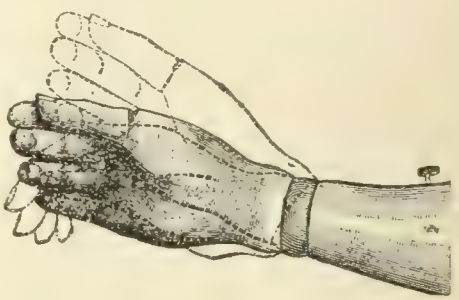
commenced with a desire—after an experience of nearly twenty years in study, actual dissections, and the teaching of anatomy—to produce a practical working-guide for the student at the cadaver, and a ready reference book, which would take the place of the cadaver for practitioners of surgery and medicine. In this endeavor the author has assuredly succeeded, and to the student and busy practitioner alike we heartily recommend the book as ranking first on the list among works of a surgical character.

Drug Eruptions. A Clinical Study of the Irritant Effects of Drugs upon the skin. By PRINCE A. MORROW, A.M., M.D., Clinical Professor of Venereal Diseases, Bellevue Hospital Medical College, New York. W. Wood & Co. 1887. Price $1.75.

There is an axiom which says that the physician should be familiar with the effects of every drug which he may employ in the treatment of various diseases. This fact may be true, but we doubt if many physicians have given particular attention to such abnormal manifestations as the eruption produced by the various remedies prescribed in the treatment of disease. We doubt if most physicians have spare moments to devote to the culture of such a theme. This subject is of importance in one point, viz., that drug eruptions might very closely simulate some of the exanthematous fevers and also certain skin diseases; in such an instance a clear knowledge of their differences would be well worth bearing in mind. This work is the result of the author's personal observations and investigations, and will doubtless prove of considerable value to those desirous of obtaining the latest information on this subject.

The Vest Pocket Anatomist (founded upon Gray). By C. HENRI LEONARD, A.M., M.D., Professor of the Medical and Surgical Diseases of Women in the Detroit College of Medicine. 13th Revised Edition, Enlarged by Sections on Anatomical Triangles and Spaces, Herniæ, Gynæcological Anatomy and Dissection hints. Detroit; The Illustrated Medical Journal Co., 1887. cloth, 86 *illustrations*, 154 pages, post-paid, 75 cents.

This little volume in its former editions is so well known, that it is only necessary to confine our notice to this, the *thirteenth* edition, which contains very clear and accurate typographical plates of the Venous, Arterial and Nervous systems, photo-engraved from the English cuts in Gray's Anatomy. This makes the work especially of value to accompany the surgical case of any practitioner that is doing much work in this line, who may wish at his hand a "regional reminder" of the placement of arteries, and veins that he may wish to avoid in making his incisions. For this special purpose this little book, since it has the addition of these 86 engravings, is of a good deal of value to the country practitioner, who sometimes does not have the time to return to his office to consult his more pretentious volumes. The "Dissection Hints" show the incisions to be made in post-mortems to advantage.



The above cut represents an Artificial arm with Ball and Socket Wrist Joint, recently invented and manufactured by Geo. R. Fuller, successor to the late Dr. Bly, of Rochester, N. Y.

The improvement admits of placing the artificial hand in any position that can be attained with the natural hand, and is an important advance in the progress of prosthesis.

SALOL.

This new remedy for rheumatic affections is a crystalline powder, having a marked but not unpleasant odor resembling wintergreen. It was first introduced by Prof. Neucke, of Berne, and has been used extensively on the continent. Dr. Siefert, of Wurtzburg, has prescribed it frequently as a mouth-wash with happy results in such cases as ulceration of the tongue—wounded during an epileptic seizure—or ulceration following the use of the cautery, or when due to stomatitis, and also as an application in ozœna and tubercular ulceration of the larynx. As an anti-rheumatic remedy it is greatly vaunted by Bielschowsky, of Breslau, and Rosenberg, of Berlin. In the majority of cases where the latter used this drug the effect was prompt in causing a lowering of temperature, and greatly lessening the pain of the joints in from twenty-four to forty-eight hours. The dose administered whilst pain and fever were present was fifteen grains every hour or two. The quantity was reduced as the symptoms disappeared. Relapses, however, were of frequent occurrence, and in every case he detected the carbolic odor in the urine. *Canadian Practitioner.*

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MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

Stated Meeting, March 11th, 1887.

Dr. WILKINS, 1ST VICE-PRESIDENT, IN THE CHAIR.

Dr. GEO. H. FOX of New York, Dr. PHELPS of Chateauguay, and Dr. JACKSON of Brockville were present at the meeting.

Common Errors in the Treatment of Skin Diseases.—Dr. Fox read a paper on the common errors in the treatment of skin diseases. He said that the great error made by practitioners in treating skin diseases was failure to treat the patient; the disease is treated, not the patient. It is most important that the patient have fresh air, wholesome food—in short, everything that tends to improve the general health. Special treatment of the disease is of no avail without improving the condition of the patient. He regarded attention to the diet as most important, and said there should be a radical change both in the quantity and quality of the food; a strict course of diet should be given the patient; the majority of patients improve on starvation diet. He advised his patients to increase the quantity of fluids taken and decrease the solids; to eat less and exercise more. A change of diet almost invariably proves of value, the more radical the better; he gets the best therapeutical effects from a vegetable diet in the treatment of inflammatory skin affections. A meat diet congests the skin; a vegetable diet relieves the congestion. He is in the habit of restricting the meat in winter and forbidding it in summer. In giving directions to a patient it is better to tell them what to eat than what to avoid. Water should be taken sparingly at meals, but in quantity between meals. In speaking of local applications, he said that very few are needed. If the disease be acute, soothing applications should be given; if chronic, stimulating ones. Infantile eczema is, as a rule, too much stimulated, and chronic eczema with infiltration too little stimulated. In treating psoriasis, chrysophanic acid is the best remedy, but even this remedy should not be used in every case, as it does positive injury where there are congestion and inflammation, but later, when the eruption becomes dry, it does good. In acne a tonic treatment is best. In speaking of local applications, the reader of the paper stated that when the substance is needed to be absorbed by the skin, then the animal fats should be used; when mere protection is wanted, then vegetable fats do very well. Vaseline has but little power of penetrating the skin. He then went on to speak of arsenic, which, he said, is used too much by the general practitioner in the treatment of skin diseases, and which, as regards skin diseases, would not be missed if abolished from the pharmacopœia; he now rarely uses it. It is at best a much over-rated remedy, and its indiscriminate use in skin diseases is fraught with evil.

Discussion.—Dr SHEPHERD said he was not prepared to go the length Dr. Fox did in attributing such a vast influence to diet in the treatment of skin diseases. No doubt it is often of importance, but he thought that Dr. Fox, like many others, was riding his special hobby too hard.

Did not think that individuals among the poorer classes with eczematous diathesis or when the disease was due to their occupation could be cured by dieting. No doubt people eat too much, and this is especially true in the higher ranks of society. In such patients diet is of the utmost importance. In this country, people eat too much meat, and he is in the habit of limiting it to one meal a day. In regard to local applications, he was thoroughly in accord with Dr. Fox. Most physicians in inflammatory diseases stimulate too much. It is a com mon thing for physicians to prescribe zinc ointment in every case, and give no directions about the use of soap and water. He found many skins in the acute stage of eczema unable to bear ointments at all, and to be much relieved by mild lead lotions. He also agreed partially with Dr. Fox concerning the misuse of arsenic; it, like zinc ointment, is prescribed in routine practice by many practitioners. Though of little value in eczema, he thought he had given it with good effect in psoriasis and bullous eruptions. He had no hesitation, however, in stating that it was a valuable tonic, and he would be sorry to do without it.

Dr. Howard said that the paper presented but few novelties in the present state of the science of medicine. Skin diseases are but local manifestations of a general condition, and it is but natural that the most successful treatment would be an alterative one, aimed at the cause of the unhealthy condition of the skin. He was not prepared, however, to hear that so much attention is given to diet, but it seems only rational. Chronic diseases generally require dietetic treatment, so one should not be suprised to find it efficient in chronic forms of skin diseases. Formerly arsenic was given for all forms of skin disease. He agreed with the last speaker in thinking that arsenic was valuable as a tonic, and he had obtained good results from its use in psoriasis and bullous affections.

Dr. Hingston said that for the last ten or fifteen years he had practically abandoned local treatment in skin affections and used only constitutional, and had always regarded a carefully regulated diet of the first importance. He could not agree with Dr. Fox in what he said about a meat diet. The French Canadians are great meat eaters, yet they were remarkably free from skin affections. Some, however, visit the United States, work in factories, and live in boarding-houses where the diet is largely composed of hot biscuits, doughnuts, pies and pastry, and live in small rooms; then come back with skin diseases which cannot be due to a meat diet. The speaker attributed most of the skin affections he had met with to want of fresh air and use of highly-spiced and other forms of irritating food, while not a few cases could be traced to the excessive use of green tea. Bread and meat he considered a good diet in skin diseases; he also believed in taking large quantities of water between meals.

Dr. Phelps said that as a general practitioner in the country he could endorse every word Dr. Fox had said. He believed most thoroughly in a com¡ lete change of diet in skin affections. He had even found a change from a good diet to an apparently bad one beneficial. He mentioned some severe cases of infantile eczema which were completely cured by changing the diet from fresh cow's milk to condensed milk. Acne in females is very generally caused by uterine disease, and until this is cured the acne cannot be relieved.

Dr. Lapthorn Smith said he had long held that all skin diseases not parasitic or specific were due to errors in diet. He had little faith in local treatment, but considered that it is most important to attend to the condition of the stomach. He thought that the good old mixture of rhubarb and soda is too much neglected in the treatment of skin diseases.

Dr. Mills believed Dr. Fox's paper to be of great importance to the medical public. He regarded Dr. Fox as a type of a specialist, who, though a specialist, treats his patients from a broad knowledge of general medicine and dietetics. To this in no small degree he believed Dr. Fox's successful career to be due.

Dr. Wilkins asked if Dr. Fox believed in an exclusive milk diet in eczema; also if in penitentiaries, where the diet was regulated, was there less skin disease. He also asked if in Germany, where little meat is eaten, there is a less amount of skin disease.

Dr. Fox, in reply, stated that he did not so much object to meat as an article of diet as to its excessive use. He had found the most obstinate cases of eczema yield to a complete change of diet that was only temporary. With regard to milk diet in eczema, he formerly believed in it, but found many patients could not take it. He had tried it on himself, and found he was unable to stand it for more than a few days. The excessive amount of skin disease in Germany could be accounted for by the habitual use of cabbage and beer as articles

of diet. He found beer very injurious in inflammatory skin affections, much more so, indeed, than whiskey. Rhubarb and soda he regarded of great use, but are prescribed too much in a routine manner in dispensaries and hospitals. One must always treat each particular case, remembering that what is suitable treatment in one case may be positively injurious in another patient with the same disease.

Dr. HOWARD, in proposing a vote of thanks to Dr. Fox, referred to a great privilege the Society had enjoyed in so being brought in contact with a man of such extensive experience. In Dr. Fox's paper there was nothing new, and in saying this he paid him the highest possible compliment, for the whole tendency of his paper was to illustrate the great scientific truth that in medicine we cannot treat the disease. We must treat the individual, the constitution. He was struck by the effect of change of diet, as shown by the numerous examples quoted by the previous speakers, in breaking up the sequence of disease; one speaker even advising the use of peaches as an article of diet.

Dr. HINGSTON seconded the motion. In the course of a few happy remarks he referred to the effect that the present fishery dispute might have in lessening the supply of a wholesome article of food in the American market.

It was then moved by Dr. TRENHOLME, seconded by Dr. LAPTHORN SMITH, that Dr. Fox be made an honorary member of the Society. This was carried unanimously.

Correspondence.

LETTER FROM BERLIN.

(*From our own Correspondent.*)

In my letter from Paris I had so much to say about Apostoli and his wonderful electrical treatment of diseases of women, that I had no space left for that wonder of this medical age, Professor Charcot. Have you ever seen him? Of medium height but most commanding presence; his long hair drawn back from his massive forehead and hanging down his neck; his head poised high and bringing into strong prominence his aquiline nose; his eagle eyes which pierce through yours so that he seems to read your very soul, but which you cannot look beyond. No wonder that he can tame the wild maniacs of the Salpetrière with one magic glance. He calls it hypnotisme this power that he has, and he and many others say that many people might learn to acquire it. But I think it is mesmerism *pur et simple*; that incomprehensible power which a great mind has over a weaker one. By it he is able to cure many diseases of defective innervation, of the hysterical class, which are due to weakness or absence of will power, and which power he supplies for them until they regain their own. It is a wonderful sight to see him like the "Great Physician" commanding the paralysed to take up their bed and walk; or to see him step up to another tortured with ceaseless movements, which are at once arrested by a single look. What a charming lecturer; he does not call them lectures or clinics, but conferences. We all sit around him leaving a little open space between him and the patients about whom he is speaking, and he just talks away as if he was recounting reminiscences of the past, now a case, now an anecdote, now a theory and now a fact, but every one of them directly to the point. As you listen you too become infatuated with him and feel that you must do like the poor maniacs and cast yourself in humble submission at his feet. Two years ago I prepared a paper on a case of genuine scleroderma under my care at the Children's hospital in London. Charcot had such a case but not nearly so marked. But how he described it! All that I had discovered about it in six months of research he gave forth in polished and familiar terms.

Within the last ten years Berlin has made immense strides forward in the advance of medical education. By the well organized German system of centralization the best man in each subject is always brought to the capital, but before reaching that summit of his ambition he may have been promoted twenty-three times, as there are that many universities in the empire, and they are all under the control of the Government. The number of the students attending them varies all the way, from forty at Giessen to thirteen hundred at Berlin, besides at the latter place some five hundred foreign doctors constituting the medical floating population. Just before my arrival there Schrœder, the Professor of Gynæcology, had died, and Olshausen of Halles was promoted to his place, and so on all down the line until they came to Giessen which was thus left without any. Then they took Hofmeier, who was Schrœder's first assistant, at Berlin and made him Professor at Giessen where he will have to remain until there is a vacancy in one of the twenty-two other univer-

sities, when he will be promoted one or perhaps several steps at a time. When I called upon Hofmeier a day or two after his appointment he was all ready with his effects packed prepared to march on the morrow. In the same way Olshausen walked into the Women's hospital a few days after leaving Halles and began operating as if he had been working in the same theatre all his life. He brought his own first assistant with him, Dr. Thorn, who will in turn be promoted to Giessen when Olshausen dies, but the other five assistants of Schrœder remain as before. Even the private hospital of the deceased professor is generally purchased by his successor.

Olshausen is a thin, pale, slightly built man with black hair commencing to turn gray, and he wears on his face that intensely earnest and anxious expression which is an indication of the price he has to pay for being great. As one of his critics told me he owed his position, a really exalted one, not to natural talent, but to indomitable energy and unceasing toil.

He is a splendid lecturer, using only the most classical language, but, unfortunately for strangers, speaks very little French or English. *Apropos* of this difficulty of languages, I found a growing feeling in favor of having one universal language for the whole world, and as English is already spoken by five hundred millions, it would be most graceful and on the whole easiest for the other nations using some fifty other languages to gradually adopt it. It could be done in a few generations, if English were taught in every school in the world in addition to the mother tongue. The same result is being reached, but much more slowly, by the present method of introducing English words into the French and German languages. Even in that way in the course of a few hundred years there will probably be only one mongrel language for all civilized nations. In the meantime I would strongly recommend all medical men who have sons destined for the medical profession to have them taught to speak English, French and German by nurses or servants from those countries, before they are sent to school. Pardon my digression. I was speaking of the splendid organization of medical teaching in Germany. One of its greatest advantages is the economising of time to the medical visitor. Thus I went there for Gynæcology and Midwifery, and this is how I spent my day. Rising at 6 a.m. and after a bath and putting on clean underclothes, both of which are obligatory, and a light breakfast, which is at you own discretion, I arrived at the Franenclinic or Woman's Hospital at 7 sharp. The porter requires you to sign a book in which you state that you understand the principle of antisepsis and that you have taken a bath, put on clean clothes, not been to any septic case, etc. You then go to a small waiting room where you remove your outer clothing, collar, necktie and braces, and where you are furnished with a clean white coat. The air of this room is saturated with carbolic spray in which you remain until 7.15, at which time you are invited to enter the operating theatre where you find the patient narcotized, the assistants in their places and the operator just about to make his incision. Absolute silence prevails; and no one dares to touch an instrument; if he did it would be discarded.

Martin, who is the best operator, never speaks during an operation; Olshausen, the next best, being slower and more labored, speaks occasionally, while Gusserow, who is much inferior to either of them as an operator, keeps up a lively conversation all the time. Olshausen operates from 7.15 until about 9.45, in which time he generally gets through an extirpation of the uterus or a laparotomy and two fistula or prolapsus operations. He then comes down to the Midwifery clinic where he remains till 11 o'clock. Here he generally has a case of labor under chloroform or serveral cases in different stages, or perhaps a case of pregnancy at the eighth month, a case of ovarian cyst and a case of ascites, in order to practice the students at diagnosing.

The stranger who is so fortunate as to receive an invitation to Martin's private hospital, a walk of eight minutes distant, at once proceeds there, where the operations last from 10.15 to 1.15 or less, as Martin is a much quicker operator, often doing a laparotomy in 11 minutes. He generally has one or two of these and one or two prolapsus operations, of which I shall speak later. After dinner you can go to Wyder's private course on operative gynæcology on the dead subject, which lasts from 2 to 4 and then across the street is Gusserow's clinic at the Charité. In the evening you can have a teacher of German to come to your house. If by chance some day there is no operation at one of these three hospitals the student is seach of Gynæcology can go to Veit's clinic in the Steinmetz Straus, where he can learn, what it is difficult to do at the others, the routine treatment of ordinary diseases, in addition to a fair assortment of operations. Veit is

very original, a bold operator, but not so careful as Martin. He is very affable and ready to explain every thing you ask of him.

Berlin offers equal advantages to the student of general surgery. Hahn, the surgical director of the Berlin city hospital, situated in the centre of the *Friedrickshaim* park, where he has nearly 400 beds under his immediate care, begins to operate every day, Sundays included, at 10 a.m., and generally keeps on until 2 or 3 o'clock p.m. In order to save time two patients are being chloroformed outside while two are being operated on, the assistants tying the arteries and applying the dressings while Hahn goes on with the next operation. Thus, the morning that I casually dropped in there, he opened the stomach on account of stricture, he performed tracheotomy, an excision of the shoulder and another of the knee; amputated an arm, and removed a dead tibia, besides performing a number of minor though difficult operations. Chloroform was the only anæsthetic used, and the usual inhaler was a light wire frame covered with flannel. While I was inquiring whether they ever had deaths on the table, and the assistant was telling me that he had never seen a death but several narrow escapes, the patient who was having her stomach opened suddenly ceased to breathe and nearly a minute elapsed before it was noticed by the operator. But in less time than it takes me to describe it, he had the electrical faradic machinery going and the tongue drawn out. For two or three minutes the current seemed to have no other effect than to cause diabolical contortions of the muscles and features of the apparently lifeless woman; as soon as he removed the poles the artificial respiration ceased. He persevered, however, until at last she drew a breath of her own accord, when Hahn threw down the electrodes, picked up his needle-holder and went on with the delicate work of sewing the stomach to the abdominal parietes as though nothing had occurred. The stomach was so contracted from want of use that it could not be drawn down below the ribs or cartilages but had to be brought out between the 9th and 10th ribs. I have already said that the hospital is situated in a park, but I omitted to mention that it is built on the pavillion system, there being about sixteen separate buildings, all separate, the only connection between them being a smooth stone tramway, on which the rubber wheeled waggons for hauling the beds to the operating building, and the food from the kitchen pavillion to the wards. What strikes one most are the splendid arrangements for cleanliness; thus the floor of the operating room is tiled, with a slope to the centre, so that after every bloody operation a hose is turned on and the floor washed clean in a minute. All the shelves are made of plate glass and iron; and rubber tubes of different colors bring the disinfecting solutions from barrels on the wall right over to the operating tables in the centre of the room.

In the afternoon you can go to Bergman's clinic in the Ziegel Strasse where they "run" three or four, and I have been told as many as eight tables, simultaneously; I can believe it as the material is enormous.

But to return to my Gynæcology. I spoke above of the prolapsus operation as the usual treatment now for prolapsus. Martin does not waste much time on these cases. As the os is generally hypertrophied, the bladder and rectum prolapsed, and the uterus down, he treats nearly all these cases simply by an operation which may be divided into 4 stages: 1st, amputation of the cervix uteri; 2nd, colporrhaphy anterior or removing a piece of surplus mucous membrane from the vagina covering the bladder, and sewing the wound together; 3rd, posterior colporrhaphy making the posterior vaginal wall smaller in the same way, and, finally, 4th, sewing up the torn perineum. By this means even an old woman with a vagina big enough to pass your fist into, comes off the table with one into which you can barely introduce your first finger. All these plastic operations are performed under continual irrigation which completely does away with the need of sponges, the liquid used being generally one in five thousand of sublimate. Instruments are kept during the operations in a solution of carbolic one in fifty. In the abdominal cavity filtered water which has been boiled is generally employed. I did not once see wire of any kind employed; catgut being the favorite ligature. It is prepared by immersion for five days in Ol. Juniperi Baccharum and then preserved in absolute alcohol. Silk ligatures are usually employed for tying pedicles and vessels; they are sometimes prepared by soaking in an etherial tincture of iodoform; or else in a sublimate solution. When they wish to make the catgut resist absorption longer than three or four days, they soak it in a solution of chromic acid which hardens it. Sponges when needed at all are replaced by rolls of absorbent cotton covered with sublimate gauze, and which are destroyed after

being used once. Strange to say the favorite remedy in subinvolution is the fluid extract of our own Hydrastis Canadensis, of which they speak in the highest terms. Want of time prevents me from saying more at present, but I may write again about two wonderful cases of recovery after laparotomy for extra uterine fœtation, complicated with shock and internal hemorrhage.

Till then adieu.

Yours truly,

A. LAPTHORN SMITH, M.D.

Progress of Science.

SPRAINED JOINTS.

BY EDMOND OWEN, F.R.C.S.

A sprain is the result of a twist or wrench which has stretched the fibrous capsule of an articulation and its synovial membrane, but which has not sufficed to cause either fracture or dislocation. The injury should be treated upon exactly the same surgical principles as those which guide us in dealing with a fracture or dislocation of a joint; yet a joint which is only "sprained" is somewhat apt to obtain but scant professional attention. Though the common saying teaches us that "A sprain is worse than a break," the unfortunate subject of a sprain is usually contented with doing the best that he can for himself with arnica, cold water, or oil, as chance, experience, or advice may suggest, seeking the surgeon's aid only for the remote and often intractable complications. In unhealthy subjects, and especially in children, want of treatment often entails articular troubles which run a lingering course and may end disastrously; and even with the strong a severe sprain is apt to involve a long continued enfeeblement of the part.

Immediately after a sprain there is a want of pliability in the joint, due in part to the pain and tenderness caused by the violence, in part to the tension of the sensory nerve filaments from the sudden effusion, and in part also to the mere mechanical effect of the presence of blood and other fluids in and around the joint. In certain situations a serious wrench of an articulation may give no visible sign upon the surface of the body; especially is this the case with the hip, the shoulder and the spinal articulations, all of which are thickly covered; stiffness will then be only the objective sign indicative of the lesion.

If a joint in the lower extremity be seriously sprained, temporary but absolute rest should be secured by, if practicable, putting the patient at once to bed; by raising the limb on a pillow or in a swing cradle, until the heel is above the level of the chin, so as to hinder capillary and venous conjestion, and by applying firm and even compression. I am convinced that judiciously applied compression not only checks effusion, but also promotes the absorption of fluid which has already been poured out, and as a rule the patient experiences immediate comfort from it. At times, however, it is possible that from tenderness of the skin or from mere apprehension, the patient will not submit to the compression immediately after the injury. Then one must be content to apply either the ice bag or an evaporating lotion. Cold plays a double part: by stimulating the vaso-motor nerves it causes a contraction of the small arteries, with the effect of checking further hemorrhage and inflammation and limiting the effusion, and by numbing the sensory nerves it diminishes pain. The lotion should not be used, however, as is often done, as a water dressing under oil silk. It must be applied on a single fold of lint, with the fluffy side outwards, so that evaporation may proceed with energy. The lint should never be allowed to get dry, nor should the limb be covered with the bed clothes.

If a man sprains his ankle while out in the fields, it should as quickly as possible be put into running water, and then be firmly bandaged with strips of wetted handkerchiefs; the boot should be worn, if he can get it on again, for the sake of the compression it affords, but it is better not to remove the boot at all until the joint can be bandaged.

Nothing short of absolute rest in bed suffices when a child sprains a joint in the lower extremity; he must not be trusted to lie on a sofa, for he would soon be off it. Where the hip-joint is sprained, the limb should be raised and rest insured in the extended position by the application of the weight and pulley, so that if matters do not clear up there will be no need for further change of position. A sprain is often the beginning of an attack of hip-joint disease.

In the case of the knee being sprained, the leg would be extended; in case of the ankle being sprained, the foot would be put up at a right angle. But in each instance the limb should be carefully bandaged upwards before the compression is applied, or œdema may follow; complete rest would be still further insured by adjusting a splint to the back or side of the limb. Compression may be applied by means of a roller of domette, or by the additional aid of plastic splinting moulded on. With children a well padded, flexible metal splint is of great service, but a casing of plaster-of-Paris and house flannel answers even better.

I have at present two men under my care, each with a severely sprained ankle, the part being swollen and discolored and the foot stiff and useless. The foot and leg have been immoblized in well-lined plaster-of-Paris casings, and thus the patients are quickly enabled to get out of bed and go about with crutches, without risk or discomfort. In neither of these men was a fracture to be detected.

When an ankle is greatly swollen from a recent

injury, and signs of fracture are not evident, it is not advisable to conduct the examination for obtaining a knowledge of the exact nature of the injury in too inquisitive a manner. If the limb be treated on the principles enunciated above, it will be well either for a severe sprain or a fracture without displacement. Possibly the patient might be unsettled at not being definitely informed whether there be fracture or not, for the oft repeated question of the patient or parent as the surgeon examines the part is, "is the bone broken?" But I am speaking merely of the principle involved in the surgery.

Absolute rest is demanded as long as heat of the surface and intra-articular pains persist. As the pains subside recourse must be had to frictions and rubbings, and, he use of stimulating linaments and cold douches. The rubbings should be executed always in the direction of the venous and lymphatic return, and may be combined with firm fingering about the part and the rubbing in of olive oil. When effusion persists over the painless joint, one may apply over the jotnt the even compression of a Martin's elastic roller for a certain length of time each day, the skin being duly protected by a soft covering. This is a highly satisfactory method of treatment in cases of chronic thickening and effusion. Leslie's soap strapping, too, when evenly and liberally applied over a sprained joint, is an excellent therapeutic measure in the days following close upon the injury.

At other times nothing seems to render such efficient aid as a wetted calico bandage. Compression in some form is needed.

On physiological grounds the early treatment of a sprained joint by poultices or fomentation is inexpedient. The application of warmth produces a vascular fullness of the part, and a relaxed condition of the tissues which are in need of being toned up and strengthened; though if synovial inflammation of an acute kind follow the sprain, leeches and fomentations may not improperly be indicated later on. For the promotion of the absorption of the lingering products of effusion, an alternation of douchings under streams of hot and cold water gives valuable aid. In no stage of the pathological process associated with a sprain should arnica solution be applied. One has met with instances in which painful and serious cellulitis has followed its use, even where there has been no previous lesion of skin. How is it that arnica has earned its reputation in the treatment of sprains, and how has that reputation managed to survive so long?

A surgeon was driving his wife in the country when the pony fell and the occupants of the carriage were thrown out into the road. When I saw him a few hours after the accident, he was wearing his right arm in a sling, the elbow being at an obtuse angle. He said that in the fall the right hand (in which he was holding the reins) and the arm were doubled and twisted underneath him, and that though he was sure no bone had been broken, he could neither bend nor straighten the elbow on account of the severe sprain it had received. He said that on his way home, and certainly well within an hour of the fall, on placing his left hand under the damaged elbow, he found a soft swelling which seemed pretty nearly as large as an egg; his wife could also feel it through his coat sleeve. Having taken the limb out of the sling and removed some water dressings, universal and extensive effusion in the articulation was evident; the distended synovial membrane was especially bulging about the head of the radius. The intra-articular pain was intense. There was no contusion of the skin nor any definite ecchymosis; movement caused great distress.

Beginning at the fingers, we firmly bandaged the extremity with a roller of domette (which from its softness and elasticity adapts itself with delightful evenness and comfort), drawing the turns which surrounded the swollen joint itself more closely and firmly for the sake of compression. Then, having bent to the proper form of the arm a padded, flexible iron splint, and carefully adjusted it, the elbow was packed round with cotton wool, and having enclosed all in a second and wider domette roller, and having got the patient to bed, we arranged the arm upon a pillow. The compression and the security afforded by the roller and the splint gave great satisfaction. On the second day we readjusted the splint and the bandages which had now become slack. Most of the tenderness and swelling had departed. Two days later and at other intervals we tightened the bandage, finding always steady improvement. In ten days the splint was removed and cautious use of the arm was allowed, but for the entire removal of the stiffness a course of shampooing from a professional rubber was resorted to. The effusion which had come on so quickly, within an hour of the injury, was evidently not inflammatory in its nature; probably it consisted of synova, blood and serum.

The other occupant of the carriage had severely sprained her left ankle, which was painful, stiff, and full of sero-synovial effusion. There was no fracture. The swelling was confined within the limits of the synovial membrane; it did not extend up above the external malleolus in the manner so characteristic of Pott's fracture. The treatment adopted consisted in surrounding the ankle with an even layer of cotton wool and in bandaging from the metatarsus upward with a soft roller, the turns of which were continued well up the calf of the leg. The foot thus firmly encased was raised upon a pillow. In a few days all the excess of synovial fluid had disappeared, but the firmly applied bandage was still worn. In a week she began to use her foot, and was finding comfort in having it and the ankle rubbed with oil several times during the day. On the occasion of my first interview the patient volunteered the important clinical statement that after the accident her foot and ankle were fairly comfortable until her boot

was removed. Probably if a bandage of plaster-of-Paris casing could have been applied immediately after the accident, but little effusion or œdema would have occurred. Certainly compression of a recently sprained joint gives results, both as regards expedition and thoroughness, with which those obtainable by the system of evaporating lotions cannot be compared.

If the sprained joint be in the thumb or finger much pain and want of pliancy may result. A small splint should be moulded on ; firm compression with a pad of cotton wool and a soft bandage exercised; and the hand worn in a sling—it should not be left free except for the cold douchings. A few days' absolute rest is expedient.

Even long years after all the local signs of a sprain have passed away, a jerked or sudden movement of the joint, or a change in the weather, reminds the subject that the part is not absolutely sound. Nearly twenty years ago, I severely sprained my left wrist at football, and to this day it has not absolutely recovered. I cannot flex or extend it as I can its fellow. A sudden movement of it is often accompanied with audible crackling and discomfort. From a close and interested observation of this joint I feel convinced that in the crevices between the articular surfaces of the bones, and against the attached parts of the capsule out of the way of pressure, there are growing delicate and injected fringes of the synovial membrane. The synovial fluid is thin in quality and in excess of the normal amount; there are no adhesions inside the articulation, but there is probably some shortening of the extra-articular fibrous tissues which were implicated in the inflammation—a shortening secondary to inflammatory thickening. Probably this shortening of the fibrous tissues plays the important *role* of a perpetual splint shielding the enfeebled synovial membrane from further shock and distress. On no account, therefore, will these adhesions be broken down or stretched by manipulation ; such a treatment is contra-indicated by the pain which closely attends any attempt at more than the accustomed movements of the joint. The very audible crackling, which even a bystander may sometimes hear on working the joint, is the result of the altered synovial fluid being quickly driven by the movements of the joint between the vascular fringes.

Occasionally when a joint has been wrenched by a recent accident, and is in consequence painful and useless, the manipulative examination which it receives from the surgeon is the means of removing much of the pain, as well as of restoring a good deal of the lost function. I am satisfied that such improvement is real, and not merely subjective. Yet because in the weakly and ailing such a therapeutic measure might probably be attended either immediately or remotely by disastrous results, and because of its utterly speculative nature, it is not to be recommended as routine practice, though it may well be kept in reserve for rare and special occasions. It certainly has a close and important bearing upon the question of bone-setting. A man sprains his ankle; the surgeon examines and reports accordingly; but, because no bone is broken, he perhaps speaks of the lesion in a careless or off hand manner, and does not insist on the necessity of rest and of other appropriate treatment. So the ankle does not get sound, and the faithless patient resorts to a quack, who at once finds "a small bone out of place." Then come a sudden twist and a crack, and lo! "the bone is in again." The patient believes that a bone has there and then been restored to its place because he is at once absolutely more comfortable, and can not only move the joint freely, but can even accept the advice to throw away his crutch or his stick, and walk on his damaged foot without further help. Perhaps he is told to go home and apply ice; and at any rate from that time he considers himself to be and indeed is—cured. Forcible manipulation is, of course, the bone-setter's panacea. I have known him employ it in the case of fracture of the surgical neck of the humerus, and as may be expected, with very serious results. In the case of recent sprain, however, the patient cannot but believe that the bone-setter's statement is true, because, beyond a doubt, his manipulation has proved effectual.

The following report illustrates the point: A gentleman of highly nervous temperament came to me with considerable bruising of the deltoid, the day after receiving a fall which might have been attended with much more serious consequences. The arm was so stiff at the shoulder-joint that he could not raise it to dress himself, nor could he touch the ear of the opposite side whilst his elbow was brought towards the front of the chest—it remained permanently though slightly abducted. Any movement of the arm was attended with pain and distress. There was no definite hollow beneath the acromion process, nor any other unequivocal sign of discoloration. There was a great element of obscurity in the case; the patient was in pain and apprehension, and expressed his fear that the shoulder-bone was "out."

A consultation on the case was not obtainable, and the course of action had to be decided. So, to err upon the safe side—if error there might be—and in order to make a thorough and practical examination of the joint, I agreed with him that there was "displacement of the shoulder-bone," and laying him upon the floor, with my heel in the axilla, I flexed the fore-arm to slacken the biceps, rotated and pulled down the arm, and then adducted it *vi et arte* and in a most determined manner. There was no click, or the sign of a readjustment having taken place, but immediately on the patient rising from the ground he said that he was much more comfortable; he had lost most of the pain; he could move his arm with comparative freedom; and to his delight, and my satisfaction, he dressed himself without assistance. He was convinced that I had reduced a dislocation. In my own mind I was sure that I had not, but for obvious reasons

I did not tell him that the success attending my treatment was worthy of a more exact diagnosis. It is with no sense of pride that I record the case; nevertheless, it might be expedient to adopt this treatment on another similar occasion. With a hyper-sensitive and nervous patient, and a fat or swollen shoulder, it is occasionally impossible to affirm, without the aid of an anæsthetic, that there is no displacement. Traction on the bent elbow, with the heel in the axilla, enables the surgeon to make the necessary examination. Certain am I of this,—that my nervous patient would not have allowed me thoroughly to examine him if I had first said that I thought there was no displacement.

I have observed the same course of events in other cases. For instance, a man has just damaged his ankle, which is now painful, swelled and stiff; a thorough manipulative examination reveals no definite lesion. But immediately after the handling the patient finds the foot so much better in every respect that he talks too lightly of his injury and wishes at once to walk about. Or an elbow, knee, or wrist is stiffened by a wrench. On being thoroughly overhauled, nothing is found absolutely wrong with it; but the patient, though a sufferer during the examination, finds the joint greatly improved by it. The surgeon will rightly refuse to include such a speculative therapeutic measure in his routine practice; but its blind employment by the charlatan is the means of securing many a triumphant success.

Where a limb is stiff from chronic muscular rheumatism, much good may often be done by *massage*, and by sudden movements imparted to it, the stiffness disappearing by magic, whilst no harm can follow the treatment.

Stiffness may follow on a sprain from effusion taking place, not into the synovial membrane of the articulation, but into a sheath in connection with a neighboring tendon. One has often to treat such effusion in the sheaths of the extensors of the thumb and wrist, and also in those of the tendons of the tibial muscles and extensors of the toes. It is, of course, easy to differentiate between an articular and a thenar effusion; the same principles direct the treatment in each case. I have, at the present time, under my care, a wrist which is stiffened from slight effusion into the sheath of the radial extensors; great relief is being afforded by the firm compression and support of a domette roller which is kept constantly wet—*The Practitioner.*

THE TREATMENT OF WHITLOW.

From time immemorial the treatment of whitlow has consisted in the early performance of deep incisions carried down to the bone and prolonged poulticing. This routine treatment is in the main accepted by most surgeons, yet great varieties of opinion are held as to the time when incision should be performed, the locality, and the duration of poulticing, it being held by many that the necrosis that so often follows this affection is due to the prolonged heat from the poultice as much as to the disease itself. The subject recently has been attracting considerable attention, and Mr. Allingham (*Medical Press* September 29, 1886) shows that there are several varieties of whitlow, and each of these requires a special mode of treatment. Mr. Allingham described five varieties of whitlow. The first, which he terms phlyzacious pustule, is nothing more than an accumulation of fluid between the epidermis and true skin. Of course, all that is required is to puncture the blister and let out the fluid. In another form, a collection of pus may form under the nail, as a result of a puncture or a breaking down of blood, following a pinch, and so give rise to considerable pain of a throbbing character. In the treatment of this class of the disease, Mr. Allingham recommends the insertion of a hare-lip pin, or some such narrow-bladed instrument, beneath the nail, keeping it quite close, so as not to wound, if possible, the tissue beneath, passing it down to the collection of pus, and then depressing the needle, and then allowing the pus to flow out. This gives instant relief, and prevents the matter from burrowing beneath the nail, and so separating it from its bed. Poulticing and waiting for the pus to work itself to the surface will entail a needless amount of unnecessary suffering upon the patient. Another form of treatment, which may be employed when the collection of pus is situated at the root of the nail, is to cut away the nail from the seat of the inflammation.

Under the term cellular whitlow, Mr. Allingham describes the inflammation of the cellular tissue covering the terminal phalanx, where the bone is free from periosteum. Inflammation of this locality, by producing strangulation of the vessels, cuts off the supply of blood to the part, and as a result causes necrosis of the phalanx. Almost as soon as the first symptoms of this affection develop, as may be recognized by acute pain in the part, with the tip of the finger swollen, tender, tense, and sometimes red, a free incision should be carried directly down to the bone, and necrosis of the terminal phalanx will thus often be prevented. When cases come under observation in which necrosis of the phalanx has already taken place, deformity may be prevented, according to Mr. Allingham, by making an incision along the palmar surface of the finger, removing the necrosed bone, and placing a narrow splint on the back of the finger, allowing it to project half an inch beyond the nail. The nail should then be fastened to the splint by adhesive plaster, so as to prevent it curling up, and it thus may act as a background on which new bone may develop. The fourth form of whitlow described is an inflammation in the sheath of the tendons over the first or second phalanx. It may arise from inflammation spreading from without, or by a purulent inflammation of the synovial sheath of the flexor tendon. The great dangers arising from this form of whitlow are that the tendons may be destroyed,

the inflammation extend into the joints, or the pus find its way into the palm of the hand. The finger in this affection soon becomes swollen and flexed, and is the seat of severe throbbing pain, the part is hot, and in the latter stages deep-seated fluctuation may be recognized. If this is allowed to progress, the whole finger may become involved, so as to present two swellings separated by a constriction corresponding to the joint.

The treatment of this affection is identical according to Mr. Allingham, with that of periosteal whitlow, from which, in fact, the tendinous inflammation can only be recognized with very great difficulty. Mr. Allingham is strongly in favor of treating these affections by lateral incisions, for on account of the difficulty of recognition of the locality of inflammation should the inflammation be confined to the periosteum, the central incition must be carried through the tendons to reach she bone, of course unnecessarily damaging the tendon. Mr. Allingham, therefore, recommends lateral incision, claiming for it the following advantages:

First.—As it is difficult to tell whether the whitlow is periosteal or tendinous, by the lateral incision, if it should be periosteal, no damage is done to the tendons by cutting through them.

Second.—By lateral incision the tendons cannot prolapse from their sheaths, and therefore the liability to gangrene is diminished.

Third.—After this method of treatment the finger can be flexed, and so relax all the structures and relieve pain, whereas by the central incision the finger should be kept straight, to prevent the tendons slipping out of their sheaths, at the same time straightening such inflamed part greatly increases the pain.

Fourth.—If the incisions are on the side they they are less likely to be pressed upon, for the cicatrix may become tender, which, if in the centre of the hand, is exposed to pressure every time the hand is closed. Again, a cicatrix in the middle line may contract, and cause the finger to become permanently flexed, whereas, if the incisions are at the side, such a result could not take place.

So much for the most recent opinions as to the surgical treatment of whitlow, a mode of procedure which is unavoidable when pus has collected.

The less severe forms of furuncular inflammation may be aborted in many cases, according to Dr. Weiss (*Medical Record*, November 27, 1886), by the inoculation of resorcin, a plan which he has employed, as follows:

A number of shallow parallel incisions about one-quarter of an inch long are made in and around the lesion and through the integument, pain being prevented by the use of a twenty per cent. solution of cocaine and ten per cent. resorcin. Lanolin salve is then applied in a very thick layer to the scarifications. The entire part is enveloped in a strip of lint, which, in turn, is to be thoroughly saturated with the salve, and over this a layer of guttapercha tissue, absorbent cotton, and moist gauze bandage may be applied in the order mentioned.

Dr. Weiss reports a number of cases in which the employment of this mode of treatment in twenty-four hours produced complete cessation of pain and arrest of inflammation.

Of course it can hardly be expected that this mode of treatment would operate in the more serious cases of periosteal or tendinous inflammation, but it seems well worthy of trial in the less grave forms of phlegmonous inflammation.—*Therapeutic Gazette.*

THE TREATMENT OF CHRONIC ABSCESSES BY INJECTIONS OF AN ETHEREAL SOLUTION OF IODOFORM.

Verchére (*Rev. de Chir.*, June, 1886) reports twenty-three cases which were treated in this manner, and gives the following directions in regard to the operation: The solutions of iodoform should be of varying strength, one of five per cent. being used for large abscesses, and one of ten per cent. for small ones, while small, superficial abscesses may be filled with a saturated solution. If the skin over the abscess is not affected, the needle of hypodermatic syringe is introduced in an oblique direction, so as to form a valvular fold; the pus is then drawn off, and the iodoform solution is injected. If, however, the skin over the abscess is quite thin, the pus is removed with an aspirator, and the opening made by the needle is sealed with collodion, after which a hypodermatic-syringe needle is inserted into the abscess cavity, and the injection is made as before. The object of these manœuvres is to prevent the ether from escaping through the puncture, as it at once tends to do on becoming volatilized. As the solution volatilizes, the iodoform deposited over the entire inner surface of the abscess, and is slowly absorbed—so slowly in fact that the danger of poisoning by the drug is said to be very slight. The phenomena observed after an injection are, briefly, as follows: Rapid and sometimes excessive swelling results from the volatilization of the ether, but this soon subsides. If the skin over the abscess is healthy, the abscess cavity will speedily be replaced by indurated tissue, without the occurrence of any external change. If the skin is already inflamed, it will separate in a few days in the form of a yellowish slough, after which healing will occur by granulation, the resulting cicatrix being slight. The advantages alleged for this method of treatment are the perfect safety of the operation, the rapidity of the cure, the fact that the patient is not confined to his bed during the treatment, and the non-recurrence of the abscess.

THE DOCTOR AS PATIENT.

"The study of medicine and personal devotion to the alleviation of suffering do not insure the

doctor against the ills common to all mankind; nor does an intimate acquaintance with the vagaries of the sick enable a physician to pass through his own trials with equanimity. In fact, the doctor is far from appearing at his best in the *rôle* of patient; he feels as much out of place on a sick bed as would a general officer if he were reduced to the ranks. He has been so long accustomed to command that he finds it very hard to obey, at least without some sort of a protest.

"During his student days he was led astray by his imagination, which made him suffer from the ills of which he studied. He probably, at that time, convinced himself of the ease with which one exaggerates his own sensations, and learned to disregard his own feelings for the most part. Only in such a way as this can we account for the neglect in himself of those beginnings of disease which a layman would suppose would infallibly arrest a doctor's attention, as they certainly would in a second person; as it is, he usually disregards his early symptoms and goes about with a temperature higher than that of the patient whom he sends inexorably to bed. He hopes for the best in his own case, as in others, but he fails to prepare for the worst, as he advises his patients to do, for he uses up by continuing his work, the strength he ought to reserve to carry him through the sickness it needs no angel sent from heaven to foretell. Once fairly prostrate, it is usually the alarmed relatives who summon the doctor, rather than the patient himself.

"And it is no light task for the brother physician who presides over his sick bed to care for the prostrate individual, who insists on discussing the method of treatment, and, with a disordered imagination and weakened intellect, desires to sit in judgment on the conduct of his own case. The patient is apt to be skeptical as to the powers of the drug on which his friend and adviser relies. He suspects his friend of a want of candor in his bedside talk. The little talk outside his door, the ruses of his wife to gain a little private conversation with the doctor, excite his anger. He listens for the noise of the wheels after his friend has left the room, and, if the sound of his chariot is too longed delayed, he feels sure that the long suffering man is delaying at the door to tell what he 'really thinks,' and he takes pains to interrupt the conversation by some abrupt message; perhaps, if it happens to be evening, by saying that it is time to close the house for the night.

"But if he is critical and somewhat skeptical, he learns to know his physicians by their steps, and even the roll of their carriages on the street; and no patient gives them a more cordial welcome, or parts with them more reluctantly. He feels sure that his memory of their kind attentions certainly must be longer than that of certain patients, who, according to the familiar lines, whose truth is too often confirmed by experience, forget even the doctor's face when they have recovered.

"He seldom escapes making himself disagreeable to his nurses. It is hard to convince him that it is his own fault that his food does not taste as it ought. He is indignant that his own kitchen can not produce broth as good as that of his neighbor: but the tales of his own peevishness, when he hears them after recovery, he can but believe are grossly exaggerated.

"Nothing is more surprising to the doctor, when reduced to the position of patient, then to find that he himself is subject to like weaknesses as other members of the human family. The nervousness, for which, in others, he has had too little sympathy shows itself in a thousand ways. The little noises impossible to avoid disturb him, and the children of his household seem most unruly. Most strange of all, and most humiliating in his remembrance afterward, he even calls his doctor for nothing. He wakes from sleep, sure he is going to have a chill, or some equally unpleasant manifestation, and when, with grave face and careful attention, his hastily summoned physician has felt the pulse, taken his temperature, and sought for the signs of any possible complication, to inform him at the end that there is nothing to justify his fears, he admires and is grateful for the patience that has borne with his apprehensions, but he feels great curiosity to know what his doctor says to himself as he goes home to renew his broken sleep; and most of all, he wonders at himself and mutters, 'Is thy servant a dog that he should have needlessly disturbed a doctor's sleep?'

"But especially trying to an invalid doctor is a tedious convalescence. His knowledge of the possible complications and sequelæ gives a wide field of possibilities, over which his imagination wanders uncontrolled, and he is fortunate if he does not become a hypochondriac. He is pretty apt to partake of the lay fondness for talking about the unusual features his case has shown. If he thinks about the matter at all, he finds how difficult it is to know at what length to detail his symptoms to inquiring friends. Unless he keeps his tongue in due subjection, he is apt to realize that few men are really good listeners, and his kind friends, when they are released from his story, may be excused if they say, 'Poor fellow, he needs bracing up.' But realy there is some excuse for him if he is a little garrulous; personal experience of pain is different from looking on, but, interested as he is in his own closer acquaintance with disease, his account of it differs little, in the ears of his medical brethren, from the story they have often heard before.

"But a little personal experience of the sick-bed teaches the doctor many things. He certainly learns that a sick man does not look upon things as a well man does, and his charity towards an invalid's whims is greatly increased. He cannot fail, too, to be touched and softened by the many kind inquiries and pleasant messages that come to him. Busy men come and sit down beside him as though the dearest object of their hearts was

to see him recover; men who justly plead bodily infirmity as an excuse against the slightest exertion climb his stairs to express their sympathy, and patients who have seemed thankless and forgetful show that they needed only the opportunity to show their gratitude. And, when the sick man resumes his place in life, he is pretty sure to have not merely an increased enjoyment in living, and a better idea of his fellow-men, but also a higher estimate of the value of his own profession."—*Boston Med. & Surg. Jour.*

ON THE LOCAL TREATMENT OF THE BLADDER.

BY PROF. ULTZMANN.

The local treatment of the bladder should only be undertaken in the chronic forms of disease, since in the acute process appropriate dietetic and therapeutic measures bring about a cure in a short time. In the majority of cases we have to do with chronic catarrh of the bladder, in which we must manage the treatment according as the disease affects young or old persons and according to its etiological origin. If it is a case of a young individual where the catarrh is only an extension of a gonorrhœal process in the posterior urethra, then the treatment of the neck of the bladder must also be pursued in connection. This is best accomplished by placing the patient in the horizontal position, with the pelvis raised, and then introducing a thin catheter (No. 7 English), with a short piece of rubber tubing attached to it, with which the bladder is emptied. The catheter is then withdrawn about three centimetres into the neck of the bladder, and, with a syringe, about 200-300 grammes of tepid medicated fluid gradually injected. If no fluid flows back, it is the best proof that the eye of the catheter is in the right place. After the injection the patient should stand up and empty the bladder himself, so that the whole medicated fluid passes over the diseased neck a second time. Soft catheters are not good for this kind of injection because the pressure of the fluid easily forces them out. If the bladder of itself, is insufficient to expel the fluid, then it must be removed again by the catheter, and this is best done in the upright position.

When the disease affects the fundus of the bladder only, then the treatment is directed to that part alone. It must be carefully washed out with a soft elastic catheter till the fluid flows back quite clear. This can best be done in the upright or sitting positions, since then the bladder will be most completely emptied. If performed in the recumbent position the pelvis must be raised. A syringe is more suitable than the irrigator, because by the former one can better measure the pressure used. Prof. Ultzmann also does not recommend the double catheter, because, he says, the fluid can easily flow back through the efferent canal without the bladder being properly washed.

The treatment by means of the irrigators is to be recommended in cases of contracted bladder, caused by parenchymatous gonorrhœal cystitis, when, through the constant pressure of the fluid on the bladder, an increase in its capacity may be expected. For the removal of sediment the irrigator is not well adapted.

Tepid injections are to be used, except in paresis and insensitive bladders, and in cases of hemorrhage, when cold injections are of advantage. In sensitive bladders warm water injections are to be employed, or the same with tinct. opii (10 drops to 100 c. cm.), or a quarter per cent. solution of cocaine, a half to one per cent. solution of resorcin, or one-sixth to one-fourth per cent. carbolic solution, a three per cent. boracic acid, a five per cent. sulphate or chloride of soda solutions.

An astringent solution may be used—a one-half per cent. alum solution; one-quarter to one-half per cent. zinc sulphate; or one-fifteenth to one-tenth per cent. nitrate of silver.

In cases of ammoniacal urine, one-tenth per cent. permanganate of potash; tepid water, with a few drops of amyl. nitrite; three to five drops amyl nitrite to half a litre of water.

In phosphaturia, one-tenth per cent. chlorine water and cabolic acid, equal parts; one-fifth per cent. salicylic acid solution; two per cent. salicylate of soda.

When Bacteria are present, a one to ten thousand sublimate solution, or a strong solution of potass. permang. may be used.

For hemorrhage: cold water; one-tenth to one-half nitrate of silver solution; ferrum sesquichloratum, fifty to sixty drops to litre of cold water.—*Centralblatt f. Therapie.*

NOTES ON SOME FORGOTTEN OR MUCH NEGLECTED REMEDIES AND THERAPEUTIC MEASURES.

By Caleb Green, M.D., Homer, New York.

Those who have lived through many years of the history of medicine, and have observed the progress and oscillations of therapeutic ideas and practices, have become familiar with the tendency of medical men to run to extremes in pursuing some new measure or in making a hobby of some new remedy, until, finding that the remedy or measure would not do all that unreasoning enthusiasm had promised, they have come to neglect or set it aside for something new,—something having similar therapeutic results, but promising to act more in accordance with the old saw, "*Tuto, cito et jucunde.*"

Those who have been observant for the last thirty or forty years of the changes alluded to have seen many remedies, therapeutical ideas, and pathological theories rise higher than they ever ought to have risen, and, on the other hand, have seen them fall lower than they deserved to fall. The tendency has been, and still is, to an extreme sweep of the pendulum.

Those who practised our art forty or forty-five years ago will remember the beginning of the decline of the great and overshadowing therapeutic agent, *bloodletting*. Previous to that period no acute inflammation or congestion escaped the lancet, or scarificator, or leech. If a young practitioner was so unfortunate as to lose a case of pneumonia or peritonitis, in which he had not bled his patient profusely and repeatedly, he was in danger of being accused by his medical fathers and nursing mothers of allowing his patient to die. The young doctor was set down as timid and inefficient; he was not to be trusted. The wise and designing Sangrados could "sit down on him" in cool assurance that they would be sustained by the laity; for, notwithstanding the rising prejudice against the excessive use of the lancet and other powerful agents, the rank and file of people still blindly worshipped the "bold practitioner," while the cautious young physician was often looked upon as a skulker.

As time wore on, however, a better system of clinical study began to prevail; empiricism gave place to a more thoughtful method of observation, which resulted first in the diminution of the amount of blood lost by the patients, and finally in the number of cases in which it was thought that bloodletting was required in any measure. The laity also began to have opinions. Slowly the fashion began to gain ground of rejecting the lancet except in extreme cases, until at last venesection, instead of being the rule, became between 1850 and 1860 the rare exception. This change, however, did not in that period become alike complete in all localities.

In the period between 1840 and 1850 two forms of empiricism which had existed for several years began to rear their heads, and even to assert themselves. I refer to the Botanic or Thomsonian "system," so called, but which now has acquired or assumed the sounding name of "Eclectic," in which all sorts of bad things are accepted,—and all sorts of bad things rejected,—in which fierce lobelia, emetics, and huge draughts of bitter or aromatic infusions and decoctions figured as the health-giving agents. The other extreme and more attractive form of charlatanism was distinguished by its therapeutic dictum of *similia similibus*, etc., and its infinitesimal dosage. These agencies, with the waning faith of both doctors and people in the former rough plans of medication, made unfashionable the former leading remedies and therapeutic measures,—bloodletting, mercurials, antimony, and counter-irritants. Cathartics never lost their hold on the people,—as witness the triumphs of Brandreth and Ayer.

The unpopularity of the lancet in pneumonia —croupous pneumonia—arose from its outrageous abuse in former times. Its use and usefulness as an adjuvant of other antiphlogistic means in early stages of this disease have been forgotten or overlooked by those who were in practice thirty-five years ago. If they will recall the prompt relief which they witnessed from an effective but judicious bloodletting, supplemented by the proper administration of antimony, they will wonder how they ever came to wholly abandon the treatment. The substitution of veratrum viride for antimony, much as it is decried on theoretical grounds (after the overburdened heart has been relieved by the abstraction of a portion of the circulating fluid), is a decided advance in the therapeusis of pneumonia. But, like the lancet and tartarized antimony, it is a powerful remedy, and is to be used with judgment, and when so used will help to limit the inflamed area as well as its duration, notwithstanding the fact that pneumonia in a certain but very limited proportion of cases suddenly subsides by crisis on the seventh or eighth day. That we do cut short—or, as the French say *jugulate*—pneumonia in a fair proportion of cases under the plan above indicated is a clinical fact too well known to be doubted, especially by those whose reaction from the extreme practice of other days was only moderate.

In a discussion which arose in the American Medical Association a few years ago, on venesection in pneumonia, a wide range of views was held. A Cincinnati professor indulged in inconsequential talk: "What advantage is there," said he, "in checking the force and frequency of the heart, when this increase in force and frequency is only compensatory, and is to be favored rather than checked? Pneumonia is due to a poison entering the blood and affecting the whole body, and no amount of bloodletting could let it out any more than we can drain out the impurities of a stream with a bucket." I say that this is inconclusive talk, and is not worthy of an attempt at refutation. In the same discussion such men as Dr. N. S. Davis, Dr. William Brodie, Dr. A. C. Post, and Dr. S. D. Gross of Philadelphia, spoke in favor of bloodletting and regarded it as an adjuvant or auxiliary of great value. Dr. Post, in allusion to the lower percentage of deaths from pneumonia treated by the modern methods, very justly remarked that no reliance could be placed on statistics, as they were chiefly drawn from a class of patients found in hospitals, who had been badly clothed, badly housed, and badly fed all their lives, and such statistics were not reliable guides. And a little reflection will show any one that in such a class of patients the modern expectant plan of management of pneumonia would show a better percentage of recoveries than the spoliative treatment of former times. But with the judicious use of the lancet among the healthy denizens of country villages and farming populations, I venture the opinion that the favorable percentage of recoveries would be recorded on the other side. If a name is treated instead of a condition, we must expect disappointment in the results.

Among modern writers, Dr. Henry Hartshorne, of Philadelphia, took a most sensible view of this whole question. He gave as reasons for the fact that bloodletting has more opponents than

defenders now, than at any earlier period in medical history: 1st, the reaction from the previously existing abuse of the remedy; 2nd, a change in the average human constitution (in large cities especially) occurring under the artificial habits of civilized life; 3rd, false construction misapplication of recent science (as in the case of the Cincinnati professor); 4, leadership and fashion. And he might have added a fear on the part of the practitioner of the prejudices of the community, and of becoming unpopular if he should bleed and blister, notwithstanding the soundness of his convictions as to the value or necessity of these measures.

By the timely and suitable letting of blood we lessen, for a time at least, the fullness of the blood-vessels, the number of the red corpuscles, the force of the heart's impulse and of the arterial impulse, and the excitement of nerve centres. "By all these influences," Dr. Hartshorne remarks, "we diminish the vascular excitement connected with an inflammation, and thus lessen the amount of the resultant exudation, and render its history more normal and its charge less degenerative and destructive."

I need only refer again to the comparative percentage of deaths under the old plan of indiscriminate bleeding in the treatment of inflammations, especially of pneumonia, as compared even with the expectant plan, to show you that, if we study the figures alone and not the facts which generate or make the figures, we may still harbor the delusion that "figures don't lie;" but, if we honestly compare facts *and* figures, we shall see how unreliable are some statistical tables, and how wofully figures *do* sometimes *lie*.

I have alluded to tartarized antimony as one of the agents resorted to in the treatment of inflammations, and especially pneumonia Before the introduction of veratrum viride, which began to be more especially noticed by Dr. Norwood, of South Carolina, about thirty-five years ago, although mentioned by Bigelow, Tully, and others twenty years earlier, antimony was the sedative generally relied on; but after a timid probation of a few years, veratrum viride acquired very generally the confidence of the profession, and tartarized antimony was forgotten. That antimony was nearly as often abused as the lancet is a fact recognized by those familiar with its literature, or who thirty or forty years ago were obliged to rely on it as a sedative,—the synergist or adjuvant of bloodletting. But the abuse of such a potent and reliable antiphlogistic was not a sound reason for its neglect or rejection. It is true that it is still used in combination and as an emetic in croup; but its valuable properties in the various forms of pulmonary inflammation are not often recognized, or are forgotten. In some conditions it cannot take the place of veratrum, and yet it is spoken of by some recent writers as "the most powerful antiphlogistic (arterial sedative) medicine." This is high praise, but a little excessive; for, by all odds, it is greatly excelled by veratrum viride as a cardiac sedative.

It seems not to be very generally known that tartar emetic is one of our most efficient agents in promoting parturition. When the pulse is tense, the os rigid, the skin dry and hot, the advance of the head slow, I have seen, by the use of small doses of antimony, the most prompt and happy change for the better. The pulse softens, the skin becomes moist, the rigid os relaxes, the vagina becomes bathed in a plentiful supply of mucus, and the uterine contractions hasten on to a speedy termination of the labor.

It is not a substitute for ergot, but it has properties which make it much oftener available as a means of hastening labor to a happy termination. If the dose can be so graduated as to produce its effect as a parturient, just short of nausea, and especially short of vomiting, the effect seems to be better than where vomiting occurs.

In this connection I may allude to the very general neglect or abandonment of emetics, except as simple evacuants of the stomach and air-passages. Thirty or forty years ago, one class of irregular practitioners were notorious for their frequent and empirical use of lobelia emetics, which they generally administered in person, in order, perhaps, to be in readiness to counteract the drastic violence of this agent should mischief threaten or occur, as it frequently did. This abuse of emetics, as well as the increasing prejudice against strikingly potent measures of all sorts, probably had its influence in inducing physicians to restrict emetics to their use as evacuants simply. But emetics for the purpose of evacuating the bile-ducts and stimulating a torpid liver to a more healthy performance of its functions, and at the same time exerting an "alterative" effect on the glands of the stomach and intestines, are not as often resorted to as formerly. They often relieve in a most evident manner that condition which, for want of a better name (and we scarcely need a better one), we call *biliousness*. But the physician who will, even "semi-occasionally," resort to emetics with all proper precautions is in danger of being branded a "fogy." Yet, with the proper restrictions and precautions, we know that they are powerful for good. Shall we be brave enough to use them?

Fashion in medicine is shown in a marked degree in the change of professional opinion, or rather of practice, in the use of blisters in chest-affections. Rubefacients and poultices are relied on when active vesication should be resorted to, especially if there is pleuritic pain indicating a simple pleurisy or one complicating pneumonia. Of course, the other depleting and sedative measures should accompany or precede the blister. It is a powerful adjuvant to other antiphlogistic measures, even when resorted to early in many cases of pneumonic inflammation, and, as I intimated before, where pleuritis is an early and marked complication. I am fully aware that this is not the doctrine

or the practice of the profession at the present time, and that I shall be criticised for holding this view. If rubefacients will contribute to the reduction of pain, vesicants will more surely reduce the pleuritic inflammation, and thus help to arrest and limit the amount of pulmonic engorgement, and not add to it, as we are taught to believe. One distinguished writer on the practice of medicine objects to the early use of blisters in pneumonia, in part because it interferes with the physical exploration of the chest, rendering it difficult to follow the progress of the exudation,—as though the object of the blister was not, with the other remedial measures, to help to arrest and limit that exudation.

In pleuritis I am positive that we withhold one of the most potent measures for its arrest and reduction if we do not at once resort to liberal vesication.

Even in the progress of tubercular phthisis I believe that we may protract the lives of some patients, and add to their comfort by attacking the local pleurisies that occur from time to time in the progress of the case by small blisters, thus arresting the inflammatory condition beneath, and preventing the early softening and breaking down of tubercular deposits at the seat of pain. I am sure that in several instances I have thus postponed the inevitable, and that without debilitating the patient.

I hope that in all that I have said (and much more in the same line might with profit be said) no one will infer that I do not appreciate the many valuable recent additions to our materia medica and to our therapeutic measures. My object has been rather to call attention to the partly-forgotten remedies and measures which are still worthy of our notice and regard, and also to call attention to the tendency to push new remedies to extremes, and then, if they fail to accomplish all that they at first promised, to abandon them, so to speak, as fossils of a former art buried deeply under the succeeding accumulations, which must also wait their turn for historic extinction unless a better medical philosophy shall assert itself. Hold fast that which is good.

I am aware that the tendency of advanced life is to conservatis ; but then there need be no bigotry if the individual has continued to cultivate his art and its literature during his accumulation of years. He will, however, be better able to point out thatwhich is of permanent value in former views and practices, but which in the rush of new discoveries and inventions is liable to be forgotten or neglected.—*Phil. Medical Times.*

DANGER IN SANTONIN.

Danger in santonin, even when given in moderate doses, was reported some weeks since in the *Lyon Médical* to have been observed so frequently that the matter has been inquired into by the *Rép. de Pharm.*, with the following results: The white santonin was found more toxic than that which had become yellow through exposure to sunlight, though the latter did not show any diminution in its therapeutic properties. Lawre thinks that the dose for a child of less than two years should not exceed three-fourths of a grain. In all cases it should be associated with a purgative—calomel, for example—to facilitate its elimination. "Santonin is innocuous or toxic," he says, "in proportion to the rapidity with which it may be eliminated, and this varies in individuals." Lewin and Caspari recommend that it be administered in oily solution. In this form it is absorbed by the intestines slowly enough to permit a direct and prolonged contact with the worms.—*Journal of Pharmacy, June*, 1887.

PERFUMERY AS A SEDATIVE.

Dr. Watson Smith, London, reports the case of his own boy, critically sick with dysentery, and the stomach so sensitive that vomiting was excited immediately any attempt was made to administer anything. The doctor then thought of the sedative effect of perfumery, and argued that if he could so deceive the patient as to cause the imagination to attribute to the article administered the delicate flavor of the perfumery, the effect upon the olfactory nerves would be soothing upon the nerves of the palate and stomach.

Some simple diet was given in a spoon held with a handkerchief, upon which a delicate perfume was sprinkled. The effect was excellent, and after a short time medicines could be given in the same way, and were retained without further disturbance of the stomach and the patient rapidly recovered.

This plan of masking the sense of taste through the influence of perfumery upon the olfactory nerves may be equally pleasant to adults.

STROPHANTHUS IN HEART-DISEASE.

Dr. J. Hutchinson, of Glasgow, writes as follows to the *British Medical Journal*:

"As the influence and value of strophanthus in heart-disease is at present attracting a good deal of attention, my experience may be of interest. I have administered the drug in twelve cases of heart-disease: nine were functional and three organic, and I have much reason to be pleased with the success of the treatment, and with the amount of relief I gave my patients.

"On looking over my notes I find two cases of mitral disease, in one of which there was a loud murmur, both obstructive and regurgitant. The patient was a woman, aged 45, in whom the prominent symptoms were harsh, hacking cough, occurring in paroxysms, dyspnœa, and at times orthopnœa ; palpitation and œdema of feet and legs. The pulse was intermittent, with a regular irregularity, and beating 90 to the minute. Strophanthus was given in half-drop doses at first, and was gradually increased until she was taking 2 minims three times a day. Almost from the first

dose taken, an alteration in the sufferings of the patient was observed. The heart-sounds were firmer and steadier; pulse-beats, though still irregular, were not so fast; cough was much less troublesome, and the palpitation was neither so frequent nor so violent. Along with this there was a copious increase in the renal secretion, which soon relieved both the visceral engorgement and œdema in the feet and legs. In fourteen days she felt so well as to be able to return to her household duties. In the other case of mitral disease the symptoms were much the same, but not nearly so severe. The same dose was given, and the effect was as satisfactory and rapid.

"Another case of aortic stenosis in an old lady aged 60, who had for years been a martyr to chronic cough, palpitation, and the other symptoms attendant upon stenosis of the aortic orifice, received great relief from a one-minim dose of the drug. In this case palpitation was very violent, the pulse was rapid, and there was extensive passive congestion of both lungs. Œdema of the feet and legs was also present in a marked degree. Under the influence of strophanthus the pulse became slower and firmer, the congestion in the lungs lessened day by day and copious diuresis soon made an alteration in the œdema. The palpitation was trifling compared to what she previously suffered, and her cough was much relieved.

"In the other nine cases in which I administered the drug I could find no trace of a murmur, and the purpose for which the medicine was administered was to allay in some measure the turbulent palpitation of which these people complained. In seven of these cases the palpitation seemed to be dependent upon dyspepsia; remedies were given for that condition. Strophanthus was also used in the hope of its exerting a calming and steadying influence upon the heart, which in all of them it succeeded in doing.

"The remaining two were cases of disordered innervation. The pulse was very rapid and irregular, the heart's action turbulent—so much so that at times the sounds could not be differentiated, but seemed all merged in a confused rumble. Both of these patients were much benefited, and though the symptoms of which they complained the loudest—namely, palpitation—is not banished, they find that it can be kept within reasonable bounds by a timely dose of strophanthus. All the patients expressed the opinion that the drug had a stimulating effect, which, however, soon wore off. Some of them professed to feel beneficial effects ten minutes after taking their appointed dose. The effect of the medicine was rapid, but did not remain long, and at the end of three or four hours required to be renewed. The system quickly became used to the drug, and to get the amount of benefit the dose required to be gradually increased.

"In prescribing it I combined it with some bitter infusion, and never failed to get physiological action. I have never seen sickness or gastric irritation produced, such as we meet with sometimes after digitalis.

"The preparation I used was tincture of the strength of 1 in 8."

TANNIC ACID AS A SURGICAL DRESSING.

Dr. T. J. Hutton writes to the *Journal of the American Medical Association*, that after sixteen years use of tannic acid as a surgical dressing, he is thoroughly satisfied as to its efficiency:

"It forms an excellent dressing in three classes of wounds, viz.:

"1. Incised wounds—applied after the sutures are inserted, or adhesive plaster is on—if the wound does not require stitching.

"2. Small wounds of irregular form and recent occurrence.

"3. Wounds of moderate size in compound fractures. Whenever applicable it excels all other dressings in the following respects.

"1. Convenience.

"2. Cheapness.

"3. Cleanliness.

"4. Efficiency.

"It is always ready. It costs but a trifle. It requires no greasy mixing, measuring, or muddling, and has neither smut nor smell.

"The method of application is simply to keep the wound covered with the powder. Wounds thus treated heal on the average in about one-third of the time required for similar ones treated by liquid, oily, or salve dressings. In converting compound fractures into simple fractures by this method, the flesh-wound is often healed in one-twelfth of the time required to heal it by wet dressings of salves that are frequently removed and re-applied."

THE TREATMENT OF ORCHITIS AND EPIDIDYMITIS.

There is such a diversity of opinion as to the best treatment of orchitis and epididymitis the result of acute gonorrhœa, that the results obtained by Mr. Frederick W. Lowndes (*Lancet*, July 24 1886) for the last eleven years in the Liverpool Lock Hospital are of considerable importance. The plan practised in this hospital is almost invariably that introduced by Mr. Furneaux Jordan in 1869, namely, by painting the affected testicle with a strong solution of nitrate of silver (two drachms to the ounce), at the same time enforcing strict rest in bed, and supporting the inflamed organ upon a small pillow so as to prevent it hanging down. Mr. Lowndes has invariably employed the same treatment, and in eleven years has treated two hundred and sixty-nine cases. He has always found his plan highly successful. The acute pain often amounting to agony is soon subdued, and in the majority of cases the organ returns to its normal size in the course of a few days. Sometimes a

second painting is necessary, but this then suffices. The same plan of treatment has also been used by him successfully in private practice. When the patient cannot be induced to take absolute rest in bed, and when the patients are compelled to follow their usual occupations, the recovery must obviously be slower, as it is not possible by suspensory bandages or by means of handkerchiefs, however skilfully applied, to insure such perfect rest as when the patient is lying in bed. While the rest is an important item in the treatment, it is not by itself sufficient to effect a cure. The immediate effects of the nitrate of silver in allaying the pain are most marked, though for obvious reasons the nitrate must act more powerfully while the organ is in a state of quiescence than when constantly active. *Therapeutic Gazette.*

CALOMEL IN THE TREATMENT OF CARDIAC DROPSY.

The striking results of Jendràssik as to the diuretic action of calomel in the treatment of dropsy, especially of cardiac origin, have already received confirmation. In the *Wierner Med. Wochen.* (July 10, 1886) Prof. Stiller, of Buda-Pest, publishes the details of eighteen cases of dropsy of cardiac origin which he has treated both in hospital and in private practice by the administration of calomel after the directions given by Jendràssik. His results, although he but seldom obtained the immense increase of urinary secretion reported by Jendràssik, were in their general results quite equally favorable to his. Two cases he gives in full detail, and either alone would be sufficient to prove the truth of the statement that in calomel a drug has been found whose value seems in such cases almost inestimable. Cases with intense œdema of the extremities, peritoneal and pleural effusions, enlarged and congested liver with marked dyspnœa, he has succeeded in restoring almost to health, certainly to comfort, by the administration of calomel. He has seen œdema entirely disappear, abdominal and pleural effusions and albuminuria removed, an enlarged liver return to its normal size with complete relief of respiratory distress. Such results have followed the administration of calomel alone after digitalis had failed to produce relief, and also in cases where the use of digitalis, on account of the unfavorable symptoms which so frequently interfere with its action had compelled its suspension. Dr. Stiller thinks that he is perfectly warranted in confirming in all respects the statements of Jendràssik. He believes that in dropsy of cardiac origin small doses of calomel constitute the most efficient and rapid means of relief, even in cases where digitalis fails, while no other drug can in any degree sufficiently approach it to be worthy of being brought into the same category. Its action is not only exerted on the removal of the œdema, but also on the effusion of serous cavities.

The diuresis, agreeing again with Jendràssik, he found to suddenly occur on the third or fourth day after the commencement of the administration of the drug, and it is advisable to suspend its use, to be renewed again in considerably decreased doses, when the diuretic action appears to be disappearing. This action in the removal of effused liquid is only to be explained by some particular facilitation of absorption by the blood, since Stiller as well as Jendràssik found that calomel so administered was entirely without influence on the heart or kidneys. In his first few cases Dr. Stiller found that diarrhœa, and in one case stomatitis, complicated his results, but in his later experience he found that the administration of opium with the calomel entirely prevented the appearance of diarrhœa, while it did not interfere with its diuretic action. According to his experience, the most marked diuretic effects have been produced from calomel without the least sign of mercurialization.

In spite of these favorable reports, calomel cannot, however, be regarded as a substitute for digitalis, since it is in no respect a heart remedy. In the numerous cases where digitalis fails or is contra-indicated, and where numerous substitutes for digitalis are either not applicable or have proved themselves unreliable, according to the above authors the value of calomel cannot be overestimated. Enough has already been determined by those two authors to prove that calomel in such diseases must in future occupy a very important place. As to the more exact indications as to its use, cases in which it is most favorable and as to whether its employment exerts any influence on the further progress of the cardiac disease, these facts must, of course, be left to future investigations. It is to be hoped that in the treatment of heart-disease calomel will receive the investigation which it without doubt seems to deserve.—*Therapeutic Gazette.*

SIMPLE CONSTIPATION AND ITS SUCCESSFUL MANAGEMENT.

Among the morbid states of the system for which suffering humanity seeks relief, often with but oftener without medical advice, none is probably of more frequent occurrence than constipation. From time immemorial to the present day countless expedients, including the use of innumerable drugs, have been resorted to in the endeavor to spur to renewed activity the flagging function of defecation. Sir Andrew Clarke has recently published some suggestive remarks concerning this subject, which, though not very original, nevertheless carry with them the weight of large experience and eminent practicality.

Sir Andrew inveighs particularly against the ignorant and unskilful domestic management of constipation, with its many untoward consequences, some of which may indeed become quite serious. He might with equal propriety have denounced the unskilful, because routine, practice of dealing with this disorder still practised by many medical men. The real mischief often begins by

the self-conscious patient seeing imaginary evils impending from the accidental failure of his bowels to act on some occasion when he has decided that they ought to have done so. The *malade imaginaire* forthwith concludes that the only way to relieve his "attack of constipation" is to take "a dose." And, he argues, the stronger the dose, the more effectual the cure. The medicine having operated, the bowels are probably found more inactive than before, which leads to renewed "doses." Soon the bowels fail to respond to natural stimuli, and periodical discharges are excited only by repeated doses of stronger and stronger aperients. In the words of Sir Andrew, "With few exceptions, no person has passed through this experience and fallen under the tyranny of aperients without finding his life invaded by a pack of petty nuisances which lower his health, vex his temper, and cripple his work."

Now, it is quite true that "for the most part all these troublesome consequences of constipation may be avoided by attending to the conditions of healthy defecation." Chief among these conditions are a sufficient quantity of digestible food—including plenty of liquid—the presence of enough refuse matters in the colon, a decent regard to nature's promptings, regular solicitation once every twenty-four hours, the co-operation of the will, and contentment with a moderate evacuation. Of course, this simple and natural regimen presupposes a healthy nervo-muscular apparatus, without which the function in question cannot be properly performed. Sir Andrew briefly discusses each of the above conditions; but they are so well known to the profession that it is unnecessary to dwell on any of them, except, perhaps, the last-named— *i.e.*, contentment with a moderate discharge. On that score there is probably more ignorance than on any other point connected with the subject. According to Clarke, "for a man of average weight, consuming an average amount of food, the average amount of fæces ready for discharge in twenty-four hours is about five ounces. This should be formed, sufficiently aërated to float, and coherent." There is not the slightest doubt that "many people expect to have a much more abundant discharge, and are dissatisfied or anxious if they do not get it." Such persons commonly resort to aperients in order to obtain "relief" from their imaginary constipation, and thus invite the very condition from which they are making misguided efforts to escape.

To effect a cure in such cases it is necessary, first of all, to stop aperients, and then to renew obedience to physiological laws. Sir Andrew's instructions to this large class of patients are so simple, direct, and practical that we cannot do better than here transcribe them:

"1. On first waking in the morning, and also on going to bed at night, sip slowly from a quarter to half a pint of water, cold or hot. 2. On rising, take a cold or tepid sponge-bath, followed by a brisk general towelling. 3. Clothe warmly and loosely; see that there is no constriction about the waist. 4. Take three simple but liberal meals daily; and, if desired, and it do not disagree, take also a slice of bread-and-butter and a cup of tea in the afternoon. When tea is used it should not be hot or strong, or infused over five minutes. Avoid pickles, spices, curries, salted or otherwise preserved provisions, pies, pastry, cheese, jams, dried fruits, nuts, all coarse, hard, and indigestible foods taken with a view of moving the bowels, strong tea, and much hot liquid of any kind, with meals. 5. Walk at least half an hour twice daily. 6. Avoid sitting and working long in such a position as will compress or constrict the bowels. 7. Solicit the action of the bowels every day after breakfast, and be patient in soliciting. If you fail in procuring relief one day, wait until the following day, when you will renew the solicitation at the appointed time. And if you fail the second day, you may, continuing the daily solicitation, wait until the fourth day, when assistance should be taken. The simplest and best will be a small enema of equal parts of olive-oil and water. The action of this injection will be greatly helped by taking it with the hips raised, and by previously anointing the anus and the lower part of the rectum with vaseline or with oil. 8. If by the use of all these means you fail in establishing the habit of daily or of alternate daily action of the bowels, it may be necessary to take artificial help. And your object in doing this is not to produce a very copious dejection, or to provoke several smaller actions: your object is to coax or persuade the bowels to act after the manner of nature, by the production of a moderate more or less solid-formed discharge. Before having recourse to drugs, you may try, on waking in the morning, massage of the abdomen, practised from right to left along the course of the colon; and you may take at the two greater meals of the day a dessert-spoonful or more of the best Lucca oil."

The author maintains that if this programme be faithfully adhered to, aperients will rarely be found necessary. Of course, Clarke admits that the use of drugs is not altogether avoidable. His own preference is for the compound aloin pill (aloin, gr. ½; ext. nucis vom., gr. ½; ferri sulph., gr. ½; myrrh and soap enough to make one pill), taken half an hour before the last meal of the day. We fully agree with Dr. Clarke in believing that "the particular agent employed for the relief of constipation is of much less importance than its mode of operation." Whatever the remedy, it should act after the manner of nature in securing a daily formed stool. If in place of yielding to the importunities of patients demanding new and stronger aperients physicians would always take the pains to insist upon some such plan as outlined above, we have no doubt that there would be less trouble for and from constipated persons.—*N. Y. Medical Record.*

SALICYLATE OF LITHIA IN ACUTE ARTICULAR RHEUMATISM.

Dr. Vulpian states that salicylate of lithia is more efficacious than salicylate of soda in cases of acute and progressive subacute articular rheumatism. It also has some effect in chronic cases when a certain number of the joints are still deformed, swollen, and painful. Four to four and a half grams, and even five grams, may be given in the day. If the improvement is not lasting, fifty centigrams may be added to the daily dose. Sometimes, when the dose is increased to five or five and a half grams, symptoms of intolerance begin to be shown. Salicylate of lithia may be given dissolved in water, in powder, or in unleavened bread, during or after meals, in doses of fifty centigrams. The physiological effects of the drug are headache, giddiness, and deafness.—*British Medical Journal.*

TREATMENT OF SCIATICA.

Dr. Metcalf, of New York, says that no prescription for sciatica has ever equalled in efficacy the following: Tinct. aconit rad., tinct. colchic. sem., tinct. belladonna, aa ʒ j. M. Sig: Dose, six drops every six hours. He also uses triturate tablets, each containing three drops of the following:—Tincture of aconite root, tincture of actea racemosa—equal parts by volume. Dose, one every four or eight hours.—*Journal American Medical Association.*

HOW TO GIVE CASTOR OIL.

Dr. Field, in a recent book, "Evacuant Medication," gives the following formula as useful in administering castor oil, especially in dysentery and enteritis, when purgation and a healing and tonic influence is required:

Ol. terebinth	gtt. lxxx;
Ol. cinnamon	Mv;
Ol. ricini	ʒ v;
Mucil. acac	q.s.;
Syr. simpl	q.s.;
Aq. puræ, q. s. ad	℥ ij.

M. Sig: Shake thoroughly. One teaspoonful, repeated *p. r. n.*

THE TREATMENT OF STYE.

Styes are such troublesome little ailments that the following remedy for their cure, recommended by M. Abadil, may be welcome:—

℞ Acidi boracic,	10 grammes
Aquæ dest.,	300 grammes

Dissolve.

With a wetted piece of wadding, drop some of this solution on the stye several times a day. It is said not only to effect a cure, but to prevent a return of the annoyance.

ANTISEPTIC GAUZE.

Dr. A. G. Gerster, in the New York *Medical Journal*, describes a way to make antiseptic gauze easily and cheaply. Twenty-five yards of cheese cloth, which can be procured at any dry-goods store for a trifling sum of money, are divided into four equal parts. Each of these is folded eight times, rolled up loosely, and tied with a string. To make the gauze absorbent it is put into a common wash-boiler, covered with water, to which a pound of washing soda or saleratus has been added, and boiled for an hour. After this it is rinsed in cold water for ten minutes to free it from the soda, passed through a clothes-wringer, and placed in a stone or glass jar or an enamelled kettle, filled with a corrosive sublimate lotion of 1 to 1000 strength, to remain therein for twenty-four hours. It is then passed through the wringer again, and hung up to dry over night when the air is free from dust. The string put about each piece should not be removed until the time of drying, as it will keep the folds from getting disarranged. The dried pieces are ready for use, and will keep clean if wrapped in a towel or put away in a jar.

When the gauze is used, suitable sized pieces, each eight folds thick, can be cut out with a pair of stout scissors.

Iodoform gauze is made by sprinkling iodoform powder from a pepper-shaker uniformly over the moist compress, and rubbing it thoroughly into the meshes between the fingers.

An excellent substitute for gauze in an emergency is common cotton batting well soaked in solution of corrosive sublimate (1 to 1000). The package of batting is unrolled in an ordinary manner, and cut into square pieces of desired size. Each of these is refolded into a small square, and thoroughly kneaded in a wash-basin filled with the mercuric solution till completely saturated. When wrung out, and unfolded to its original shape, it is ready for use. Any clean fabric of cotton or linen, soaked in mercuric solution, makes a good antiseptic dressing.

CHEADLE: CONSTIPATION IN CHILDHOOD AND ITS SEQUEL, ATONY, AND DILATATION OF THE COLON.

(*Lancet*, December 4 and 11, 1886.)

In these two lectures the author discusses this important subject in an interesting and profitable manner.

Among the causes existing in adults for constipation, he mentions dread of stool from the pain which accompanies the act as being an important factor in many cases among children. The continued and habitual use of coarse foods, such as oatmeal, etc., he thinks not advisable, as these, like too many purgatives, tend to produce atony of the muscular coat from continued over-stimulation.

The habitual use of enemata is productive only of harm. Cases are cited where this practice had

been continued for months, sometimes two or three enemata being retained in the bowels for some time before expulsion took place, with the result of causing such dilatation of the colon as to crowd up the heart and lungs, producing dyspnœa and impeded circulation, and great abdominal distention.

Puncture of the bowels with a small trocar was used in one case with success; this being followed by the use of abdominal bandages.

The method of treatment he has found most satisfactory is the continuous use of non-stimulating purgatives, especially the salines, together with the administration of strychnia and belladonna in all cases of long standing, where atony is probably a feature.

For young infants he employs the carbonate of magnesia, given in doses of gr. x to gr. xxx, once or twice a day in milk.

For older infants and young children a mixture of the sulphates of magnesia and soda in a little larger doses than the above, together with strychnia, belladonna, and iron, if the case is a chronic one.

In older children a nightly pill of aloin with the last-mentioned drugs is advised.

Attention to diet, exercise, bathing, and habits generally, is not overlooked by the writer. Great benefit sometimes results from systematic massage of the abdomen with castor or cod-liver oil. *Archives of Pediatrics.*

THE ANTISEPTIC TREATMENT OF SUMMER DIARRHŒA.

At the annual meeting of the New York Academy of Medicine, held January 6, 1887, Dr. L. Emmet Holt read a paper on the "Antiseptic Treatment of Summer Diarrhœa" (*Medical Record*, January 15, 1887). The speaker stated that he did not undervalue other methods of treatment than the use of drugs, such as careful feeding, change of air, etc., but the object of the paper was to discuss what additional measures were useful.

All the causes of summer diarrhœa—excessive heat, improper or artificial feeding, and bad hygienic surroundings—united to produce a dyspeptic condition, which was really at the bottom of nearly all of these cases. The age showed it could not be heat alone, for the disease was not frequent at the most tender age,—under six months. Of 431 cases, only twelve per cent. were under six months, while fifty-nine per cent. were between six months and two years. The explanation was that under six months most of the children were fed at the breast. Improper and artificial feeding was quite as important as heat, as Hope had found in 591 fatal cases that only 28 had no food but the breast.

Heat depressed vital energy, increased decomposition in the streets and sewers, and thus vitiated the atmosphere; but, most of all, it produced in the food given to young children putrefactive changes before it was taken into the stomach.

This was especially likely to occur with milk. One instance was cited of every one of twenty-three healthy children being taken in one day with diarrhœa from bad milk.,

Closely related to this subject were the poisons produced from food, or ptomaines. Brunton had stated that most of the alkaloids produced from the decomposition of albumen caused diarrhœa. It was believed that many of the nervous symptoms in summer diarrhœa had their explanation in the effects of these alkaloids. This was true especially where the discharges were abruptly arrested, either spontaneously or by opium. They were to be looked upon as a form of toxœmia.

The inflammatory changes found in the intestine were to be looked upon as a consequence of the diarrhœa rather than the cause of it. The most marked lesions were always found in the cæcum and sigmoid flexure, just where the irritating substances were longest detained in their passage.

Immense numbers of bacteria were found in the discharges, but no sufficient evidence had yet been adduced to establish the existence of a special microbe as a causative agent.

The indications for treatment were four: 1. To clear out the bowels. 2. To stop decomposition. 3. To restore healthy action in the alimentary tract. 4. To treat the consequential lesions.

It was proper to begin with a cathartic in all cases unless the stomach was very irritable. Castor oil was by far the best. If much vomiting were present, a copious injection of water, enough to wash out the colon, should be given.

Many mild cases could be cured by the oil alone, provided suitable dietetic regulations afterwards could be carried out. In severe ones it gave only temporary benefit.

For the second and third indications an antiseptic should be given and the diet carefully regulated. The best antiseptics were sodium salicylate and naphthalin. The former should be given in doses of 1 to 3 grains, according to the age of the child, every two hours, and the latter in about double the dose.

If vomiting were present, all food should be stopped for from twelve to twenty-four hours, and thirst quenched by thin barley-gruel or mineral-waters,—cold, and in small quantities.

Unless the child were upon the breast, in which case it should, of course, be kept there, it was better to *withold milk entirely*. Wine-whey, animal broths, expressed beef-juice, or even raw beef, could be used, and were usually sufficient.

To meet the fourth indication—*i.e.*, to treat the lesions—astringents by the mouth were useless, with the possible exception of bismuth. The diet should be as carefully looked to in chronic cases as in acute. The antiseptic should be continued, to check fermentation and decomposition in the intestine, and the large intestine should be washed out once a day with pure water or a weak antiseptic or astringent solution.

Attention was called to the fact that, except opium, nearly all the drugs which had held their place in the treatment of this disease were antiseptics of more or less power. Bismuth, calomel, the mineral acids, iron and silver salts were cited. Pure antiseptics had been used in the treatment of diarrhœal diseases since 1846. Creasote was employed, and with great success both in England and in this country. Ten or fifteen years ago salicin was largely used, especially in the South, with uniformly good results, particularly in chronic cases. The use of salicylic acid and its salts, the bichloride of mercury, and naphthalin was also referred to. The last was of latest introduction, and seemed likely to prove of very great value, perhaps the most valuable of all.

Notwithstanding the successful results obtained by antiseptics, the great majority of the text-books still advocated the old plan of the use of opium and astringents as fifty years ago. An inquiry into the public practice of this city showed that in fourteen institutions and dispensaries, where it was estimated that twenty-five thousand children were treated yearly for diarrhœal diseases, the main reliance was still upon opium, bismuth, chalk mixture, and castor oil.

The speaker had tabulated 300 cases of his own treated by such remedies. Of these, 50 per cent. were cured; 27 per cent. improved; 18 per cent. unimproved; and 7 per cent. died. During the past year he had treated 81 similar cases by an initial dose of castor oil, followed by salicylate of sodium, these being the only drugs used. Of these, 84 per cent. were cured; 7 per cent. improved; 7 per cent. unimproved; 1.2 per cent. died. Forty-four cases were treated by naphthalin, usually preceded by the oil. Of these, 67 per cent. were cured: 15 per cent. improved; 13 per cent. unimproved; and 2 per cent. died. Resorcin was used in a similar manner in 27 cases. Of these, 55 per cent. were cured; 22 per cent. improved; 22 per cent. unimproved; and none died.

The duration of the disease in these cases before treatment was about the same in each class. The duration of treatment in the cured cases was much shorter by sodium salicylate than by the use of opium, astringents, etc. In cases of long standing the very great superiority of the salicylate and naphthalin was clearly shown. Resorcin was much inferior to the drugs just mentioned.

The following conclusions were drawn from the paper:

First.—Summer diarrhœa is not to be regarded as a disease depending upon a single morbific agent.

Second.—The remote causes are many,—heat, improper and artificial feeding, bad hygiene, etc.

Third.—The immediate cause is the putrefactive changes which take place in the stomach and bowels in food not digested, which changes often are begun outside the body.

Fourth.—These products may act as systemic poisons, or the particles may cause local irritation and inflammation of the intestine.

Fifth.—The routine use of opium and astringents is not only useless, but, especially at the outset, may do positive harm; since, by checking peristalsis, opium stops elimination and increases decomposition.

Sixth.—Evacuants are to be considered an essential part of the antiseptic treatment.

Seventh.—The salts of salicylic acid and naphthalin are the antiseptics which, thus far, seem to be best adapted to the treatment of diarrhœal diseases.

Dr. R. W. Wilcox spoke especially with reference to the use of naphthalin in diarrhœa in adults. Since reading Rossbach's paper in the *Berliner Klinische Wochenschrift*, in November, 1884, he had used naphthalin in thirty-two cases, nearly all being in adults. He had come to feel as much confidence in the use of this drug, under certain circumstances, as in the use of mercury or the iodides in syphilis or of quinine in intermittent fever. As mercury and quinine may fail to accomplish their work if used without observance of a few well-known precautions, so naphthalin may fail if improperly employed. The most frequent cause of failure has been the use of too small quantities, less than 60 grains daily being a needless waste of a very good medicine. He had given up to 120 grains during the twenty-four hours in divided doses, usually in starch capsules with a small quantity of oil of bergamot to conceal the somewhat unpleasant odor. If the impurities of the drug are removed by washing with alcohol, no such untoward effects as have been occasionally reported in the journals will occur. Frequently during its administration the urine will assume a smoky color, resembling that of acute nephritis, but a careful examination will fail to detect either albumen or casts.

In chronic diarrhœas he had used naphthalin as the only drug in twenty-one cases. Nearly all degrees and varieties had been represented; some could be traced back to an acute process, others were the result of improper food or followed debilitating diseases.

He related one case: James D., messenger, 18 years of age, came to him, complaining of a diarrhœa of over two years' duration. Its commencement was in the second summer previous to his first visit. The assigned cause was overindulgence in unripe or spoiled fruit. The trouble had continued through the following winter, with intervals of cessation, and had been aggravated the following summer. Since summer his loss of flesh, previously considerable, had increased, his tongue was heavily coated, the appetite poor; his discharges were five to six daily, unformed, varying much in amount, sometimes watery, very foul-smelling, much gas, no tenesmus, no blood; pain at times, but no fever. Although he was in a deplorable condition. and so long as his work remained severe and his food unsuitable recovery seemed impossible, by the use of 60 grains of naphthalin daily the number of movements were

reduced, within a week, to two daily, and, for the first time, became formed and devoid of odor. About six months afterwards he reported that after three weeks he had discontinued his medicine, having had no further necessity for using it.

In *chronic dysentery* he had used naphthalin in seven cases, with excellent results. The most interesting case was that of James C., 66 years of age, who contracted dysentery while serving in the Federal army in 1862-64. He had never been free from the disease except for a few weeks at intervals. He could remember no day during which he had not had more than one passage. He was emaciated, with sallow, dirty skin, marked tenesmus, abdomen painful on pressure, red tongue, pulse very feeble, no appetite. His stools averaged seven movements daily,—slimy, blood-stained, of extremely foul odor. This man had 90 grains of naphthalin daily, and at the end of the month he would have hardly been recognized as the same man. Four months after he reported himself so much improved that he considered himself a well man.

His experience in the diarrhœa of *typhoid fever* had been limited to two cases: Charles B., 25 years of age, and John F., 16 years of age, both of whom he saw for the first time in the third week, the diagnosis being thoroughly established. In both there was commencing tympanites; diarrhœa, to the extent of six to ten passages in the twenty-four hours. Naphthalin was administered up to 60 and 90 grains in the day, with the result of "stiffening up" the motions and reducing them to two daily. The odor of the stools, in both cases, was lost. In fact, he felt so confident that the intestinal canal and, consequently, the fæces were disinfected that he did not take any other precautions. He also directed attention to the antipyretic effect of this drug. In general, the use of antipyretics in typhoid fever he considers unsafe; but if the practitioner was thoroughly imbued with the idea that he must use an antipyretic, let him use naphthalin, which reduces temperature, indirectly, by disinfection of the intestine. In point of safety it compared favorably with such drugs as antifebrin, thallin, antipyrin, etc. Whether typhoid fever had ever been aborted by this or any other drug he did not pretend to say; but if it could be accomplished, in his opinion, naphthalin, by its vigorous action upon the contents of the alimentary canal, should tend to that result.

Of the use of naphthalin in acute intestinal catarrhs, and in the diarrhœas of children, he had had no experience. In the diarrhœa of chronic tuberculosis he had had no opportunities for experiment. In all his cases of diarrhœa evidences of tuberculosis in other organs were sought for, but were not found. He would emphasize the claims of naphthalin as *the* drug to use in all cases in which it was necessary to disinfect the alimentary canal, as in typhoid fever, intestinal catarrhs, and dysentery, because it seems to be, of all the drugs at our disposal, the most certain, and at the same time the one most free from danger.—*Therapeutic Gazette.*

ANTI-DIARRHŒIC PILLS.

Trousseau recommends the following formula in rebellious cases of diarrhœa which have resisted treatment by salines:

℞.—Powdered ipecac. . . . . gr. viij.
Extract of opium,
Calomel . . . . . aa gr. iss.
To make twenty pills.

The dose, one to three pills daily, is continued for a week or longer.—*L'Union Médicale.*

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CANADIAN MEDICAL ASSOCIATION.

We would remind our readers that this Association holds its twentieth annual meeting at Hamilton, Ont., under the Presidency of Dr. Holmes, on the 31st of August and 1st of September.

SIR JAMES A. GRANT, M.D.

Dr. J. A. Grant of Ottawa, who ever since that city became the capital of Canada has professionally attended the various governor generals and their families, has just been created a Knight Commander of the most distinguished order of St. Michael and St. George. Dr. Grant has the proud distinction of being the first Canadian medical man who has received the honor of knighthood. He received his medical education at McGill College, where he graduated in 1854, since which time he has become an L.R.C.P. London, and an F.R.C.S. at Edinburgh. Dr. Grant has been President of the Canadian Medical Association and of the College of Physicians and Surgeons of Ontario; he has also contributed many valuable articles to medical science. We congratulate him on his promotion and wish him long life to enjoy it.

A MAGNIFICENT DONATION.

Sir Donald Smith and Sir George Stephen have notified the Mayor of Montreal of their intention to contribute the sum of one million dollars to build, equip, and endow a General Hospital in this city, to be known, in commemoration of Her Majesty's Jubilee, as "The Royal Victoria Hospital." This magnificent donation is accompanied by a request that the city should contribute the land on which to erect the building, and the donors asked for a site on the side of the Mountain, next to the residence of Sir Hugh Allan. This has been granted and perpetually leased to the hospital at one dollar a year rental. The charter has since been obtained from the Dominion Legislature and the money has been deposited in the Bank of Montreal. Such a noble donation made in the life time of the benefactors, cannot be too highly appreciated, and we trust that these two noble hearted Scotchmen will live many years to realise the benefit which their liberality is bestowing on suffering humanity. We have not yet seen the charter, but trust its terms place its management upon a broad and liberal basis.

PERSONAL.

The many friends of Dr. Robert Howard, of St. Johns, Q., will be glad to hear that he is now able to get about slowly, with the aid of crutches. His eye sight, however, continues poor. His progress so far has been a surprise to many of his medical friends, when the serious character of his disease is remembered. They are now hopeful of a still further improvement—though it may be slow.

Dr. Kerr of Winnipeg has gone to England on a brief trip.

Dr. Guerin of Montreal has returned from Paris.

Dr. Grasett has been appointed to the chair of surgery in Trinity Medical College, Toronto, rendered vacant by the death of Dr. Fulton. Dr. Covernton, sr., takes medical jurisprudence, and Dr. Covernton, jr., sanitary science.

Dr. F. W. Campbell, has been appointed Medical Referee for the Dominion of Canada for the New York Life Insurance Company. In this capacity he has entire charge of all Medical matters pertaining to the Company. This appointment is entirely distinct from the position of Medical Examiner for the Company in Montreal, which he has held for the last nineteen years.

Dr. Birkett (M.D. McGill College, 1886) has been nominated Assistant Surgeon of the Victoria Rifles of Canada, (Montreal).

Dr. Corson (M.D. McGill 1885) has been appointed Surgeon, and Dr. Rollo Campbell, (M.D. Bishops', 1887) Assistant Surgeon of the Royal Scots of Montreal.

Dr. Weir Mitchell of Philadelphia is on the Restigouche River, salmon fishing, as is also Dr. Frank Thompson of Philadelphia. Dr. F. W. Campbell of Montreal is also engaged at the same sport on the same river.

Dr. Paré of Lachine has been appointed an Assistant Surgeon in the North West Mounted Police. The appointment is a good one.

Dr. R. Palmer Howard of Montreal is fishing on the Little Cascapedia.

Dr. A. L. Smith, Professor of Medical Jurisprudence, University of Bishop's College, returned from Europe by the *SS. Lake Ontario* which arrived here on June 22nd.

Dr. James Stewart has been appointed assistant physician to the Montreal General Hospital, *vice* Dr. J. C. Cameron, appointed consulting physician.

Dr. Wolfred Nelson (M.D., Bishops' College and McGill College, 1872), Foreign Medical Inspector for the New York Life Insurance Company, sailed a few days ago for Europe on Company business. He will be absent several months, and his time will be passed entirely on the continent.

Dr. T. J. Alloway has been appointed assistant surgeon of the Montreal General Hospital *vice* Dr. Girdwood, appointed consulting surgeon.

Dr. R. A. Kennedy, Registrar of the University of Bishop's College and one of the Editors of this journal, has returned from Colorado where he had been spending a few weeks for the benefit of his health, which we are glad to say is greatly improved.

REVIEWS.

"*Which? or Between Two Women*," in press for immediate publication by T. B. Peterson & Brothers, Philadelphia, is the latest and most powerful novel from the pen of the celebrated French novelist, Ernest Daudet. It is fully worthy of its famous author's great reputation, and is one of the strongest and best love romances ever issued from the press. The action is brisk and spirited, while the interest is of the most absorbing kind.

The scene is laid in Paris and the country, and the events are described with rare vigor and completeness of detail. Many of the incidents are of the most thrilling and dramatic description, while the characters are all well drawn, and speak and act like living people. It will be issued in a large duodecimo volume, price 75 cents.

Athothis. A Satire on Modern Medicine by THOMAS C. MINOR, Cincinnati, Robert Clarke & Co., 1887.

This is a cleverly written Egyptological fable, in which the author gives some, perhaps, well deserved hits on the customs of fashionable medical practice in this the nineteenth century. Even the germ theory is not forgotten and comes in for a goodly share of criticism. The various types of successful medical practitioners are very vividly caricatured, and the general style and contour of the book will amply repay the physician's perusal while enjoying a few days' vacation.

A Treatise on Diphtheria Historically and Practically Considered; Including Croup, Tracheotomy and Intubation. By A. SANNE. Translated, annotated and the surgical anatomy added; illustrated with a full-page colored lithograph and many wood engravings. By HENRY Z. GILL. St. Louis: J. H. Chambers & Co., 1887. 665 pages. Price: Cloth, $5; Sheep, $6.

We highly recommend this exhaustive volume on a subject of such very vital importance to the medical profession in general. The work deals with diphtheria in all its various forms, with its history, prophylaxis and treatment in such an able manner that it cannot fail to be appreciated by our readers. The paper and variety of type are of the best quality, as is also the binding. The translator who has so ably performed his duty as well as the publishers are deserving of all possible success, for not having spared any effort to bring this valuable work creditably before the American public.

What to do in cases of Poisoning. By WILLIAM MURRELL, M.D., F. R. C. P., Lecturer on Pharmacology and Therapeutics in the Westminster Hospital, etc., etc. First American from the Fifth English Edition, Edited by Frank Woodbury, M.D., Fellow of College of Physicians of Philadelphia, Professor of Materia Medica, Therapeutics and of Clinical Medicine in the Medico-Chirurgical College of Philadelphia. Published by the Medical Register Co., Philadelphia, 1887.

This little work having gone through five editions in England proves beyond doubt that it must have supplied a long felt want in the medical literature of a toxicological character. The author says he disclaims any responsibility in the matter of the large circulation of this work. That this book has saved some lives is doubtless true, one case being recorded of a gentleman who contemplated poisoning himself, but changed his mind on reading the directions for treatment. The general "make up" of the book is very good, and the various poisons and their antidotes are so arranged (being placed alphabetically) as to make reference easy. A chapter has also been added regarding the fee which should be charged in cases of poisoning. Altogether the work is one of the best for the busy medical man, being very concise and compact, capable of being carried in the pocket or medicine chest.

Earth as a Topical Application in Surgery. Being a full exposition of its use in all the cases requiring topical applications admitted in the Men and Women's Surgical Wards of the Philadelphia Hospital during a period of six months in 1869. By ADDINELL HEWSON, M.D. Second edition, with four photographic illustrations. Published by the Medical Register Company, Philadelphia, 1887.

This book contains numerous very concise statements regarding the results of the use of dry earth as a dressing in surgical cases. Although the author in the first edition of this work made several suggestions in regard to the treatment of surgical affections by the use of earth or clay, the medical profession do not, as yet, appear to have taken much interest in the subject, although the results of Dr. Hewson's experimental labors, have been all that could be desired. The writer appears to have used the dressing in some severe and complicated cases, such as fractures, compound and comminuted, ulcerated wounds, involving joints, and in excisions and amputations, and has evidently given the dressing a severe trial with the best results. The author claims the following beneficial results are to be obtained from the proper application of this substance, viz.: Relief of pain, absence of inflammation and putrefaction, deodorizing properties, and promotion of the healing process.

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ON SOME FORMS OF HYSTERIA.

BY GEORGE ROSS, M.D.,

Professor of Clinical Medicine, McGill University.

(*Read before the Medico-Chirurgical Society of Montreal.*)

We are all fully alive to the freaks and vagaries of that strange disease, *Hysteria*, and, in anomalous cases, should be on the alert for the detection of this underlying element. The usual manifestations of hysteria are so striking, so well understood, and so easily recognized, that when they exist, they give an impress to the symptomatology that cannot escape the medical observer. But when these are wanting, the symptoms may very easily be, and often are, mistaken for those arising either from *organic* disease of the nervous system (central or peripheral), or from disease of very various organs and structures. It is, too, a matter of common observation that persons suffering from the graver forms of hysteria may never have presented any of the common manifestations just alluded to, and this valuable aid to diagnosis is frequently wanting. This point is worth establishing, because it is within my experience that the absence of a history of globus, or of convulsions or fainting attacks, or retention of urine, etc., is often brought forward as an argument against the hysterical hypothesis in a doubtful case. To reach a satisfactory diagnosis in these cases, it is of special value to consider the whole of the symptoms together, taking in the entire picture made by these, and studying them from the standpoint of their possible explanation as a whole—for the anomalous character of the entire group of symptoms often forms the strongest argument in favor of hysteria; and mistakes are often made by want of due consideration of this procedure, where any two or three of the symptoms, taken apart from others, might readily indicate an entirely erroneous conclusion.

As hysteria is pre-eminently a disease of the female sex, it is mainly amongst girls and women that we are so apt to suspect its existence. That it occurs amongst boys and men will be admitted by any medical man to whom you put the question; but you will generally find that the cases they have seen are limited to perhaps one or two in which the common phenomena—emotional fits, or globus, or palpitation—have occurred. So rare is it to observe hysteria gravior in the male. But it does show itself sometimes, and may then be the source of grave alarm on the part of both friends and medical attendants. I have met with several examples of the kind within the past year, and to illustrate this point, select two cases from the hospital record:

CASE I.—E. P., aged 31, telegraph operator, admitted 27th September, 1886, complaining of spitting blood, severe vomiting, and diarrhœa. Family history good. Patient has always enjoyed good health until 4th July, 1884, when, whilst on a sea voyage, was suddenly thrown from his berth, striking his head against a marble wash-stand. Remained unconscious for half-an-hour, and no bad effects followed until twenty days after the accident, when he had a fit, described as follows: Unconscious; frothing at the mouth; tongue

bitten; limbs quiet. Fit lasted half-an-hour, after which he felt tired and sleepy. These fits came on every second day about 11 a.m., and were preceded by a feeling of "wishing to be alone." The fits continued for three months, and at the end of this time patient entered a hospital in Dublin, where the surgeons decided to trephine; but patient objected to this, and he was given small doses of calomel for two hundred consecutive hours. The result of this treatment was severe ptyalism and complete cessation of the fits. Has had no recurrence since. Nine months later had occasional attacks of cholerine for two months whilst in Marseilles. In December, 1885, began to complain of an easy, painless, non paroxysmal cough, generally worse in the morning, attended with a small amount of greyish-colored and tenacious sputa. In the intervals of coughing, patient spat up bright red, frothy blood, varying in quantity from a teaspoonful to three tablespoonfuls, and, he says, as much as 20 ounces upon one occasion. Had night sweats; no diarrhœa; lost flesh somewhat. Remained in a hospital in Paris for two months, where, under the use of the hot hammer and blisters to the chest, he improved very much, and returned to England. Three months later, through having "caught cold," patient had a return of the above symptoms in about the same degree of severity. He now entered the Brompton Hospital, where, under treatment (cod-liver oil, porter, and nourishing diet), he improved so much that at the end of five weeks he left the hospital able to resume his usual occupation. Shortly after there was a return of all his previous symptoms in a slighter degree, and he entered the Victoria Park Hospital. Here, under a similar course of treatment, he improved much in health and strength, and continued to do so until 26th September, 1886, when after just arriving in Montreal was seized with, he says, a severe attack of diarrhœa, stools being watery, yellow, and streaked with blood, the passage of each stool being attended with a good deal of pain and tenesmus; complained also of abdominal cramps and vomiting, the ejecta consisting of food taken. Had a slight attack of spitting of blood. No cough nor thoracic pain. These symptoms were preceded by chills and feverishness. Upon admission, these were the symptoms complained of by patient; but, upon examination, the stools passed were quite normal in appearance, and he had no attack of vomiting.

Examination—Of average height; weight 118 lbs.; sparely, though well-built; anæmic; dark complexioned; skin warm and moist; muscles not wasted; no evidence of injury to head; no evidences of syphilis; nails not incurvated; tongue pale and moist, coated in centre with slight white fur-edges indented. Pulse 84, regular, and of good volume. Respiration 18, regular. Temperature 99°. Physical examination of the heart and lungs is negative. Examination of the larynx by Dr. Major reveals nothing abnormal. Dr. Johnston's report upon the sputum (?) is as follows: "A dark-brown fluid, odor aromatic, contains traces of food, considerable number of fat globules, and numerous, epithelial scales, also a few mold filaments; not examined for bacilli, as none of the usual elements of sputum were found; no blood-cells to be seen in specimen." Urine 52 ozs., very pale color; no deposit; 1022; no sugar, no albumen.

During patient's stay in the hospital his chest was frequently examined, with negative results; the spurious expectoration was subjected to rigid examinations, with the same result as that at first arrived at. He was closely watched for these attacks of spitting of blood, but never could he be caught in the act. The symptoms complained of disappeared upon admission; his appetite was good, the bowels regular, slept well, gained in weight, and nothing unusual developed until 30th October, when, at 2 p.m., he was seized with violent and excessive pain in the umbilical region, and upon examination, even the slightest touch caused excruciating pain and made him cry out. The position assumed was as follows: Recumbent posture; left arm held closely to the body and forearm flexed to a right angle; fingers of left hand strongly abducted from the median line and semi-flexed; the left thumb was firmly adducted and flexed to a right angle. The fingers and thumb were easily straightened, but soon flew back to their original state. The act of moving the fingers apparently pained him very much. The right upper extremity was not at all affected. The lower extremities were markedly rigid and extended. Feet extended and all the toes pointed forwards, except the left great one, which was bent backwards and almost touched the dorsum of the foot. Unexpected tickling or pinching the lower extremities would cause the existing rigidity to pass off, and the legs would suddenly be drawn up. When attention is drawn to it, no amount of tickling or pricking with a pin would cause any starting of the extremities or give evidence of pain. Patient

wrongly locates the site of any touch or irritation. Sight and hearing unaffected. Pulse 60, regular; respiration 18; temperature 98°. This condition continued for about one hour, and at the end of this time had resumed his natural state. In the evening of the same day had a similar attack; but in addition to the foregoing symptoms, there was, as he said, "complete inability to see any objects or even to distinguish light from darkness;" the sense of smell and taste were also absent, as he did not give the slightest evidence of perceiving a strong solution of ammonia held closely to the nostrils, nor of tincture of assafœtida placed on the tongue. Patellar reflex was present, and to a marked degree on the left side. Pulse 70, regular; respiration 18; temperature 100°. Patient said he had a fit during the night of a character similar to those he had when in a hospital in Dublin. Next day all that remained of his symptoms was analgæsia above the right eye, over an area of 2 × 3 inches. His gait had also changed, for when walking he placed the right foot in advance of the left, and rested on the right whilst the left was lifted in a rigid state close to the other foot. At times when walking in this manner he would tend to fall to the left side. Two days later all symptoms had entirely disappeared, and the gait was again quite natural. Patient left the hospital next day.

Now this is a curious medical history. It consists, briefly, in "fits," said to have been cured by calomel; repeated hæmoptysis and a cough; diarrhœa for several months; return of alleged hæmoptysis; the colored fluid shown not to have come from the lungs; sudden onset of spastic contractures in limbs; analgesia; sudden disappearance of the same; sudden and temporary interference with the special senses. It involves manifest incongruities which are not to be explained except upon the ground of hysteria. Our observations on this patient whilst in hospital showed that he possessed in a marked degree many of the mental characteristics with which we are especially familiar in women who suffer from this malady, viz., a keen interest in their own medical case—a craving for a corresponding interest on the part of those around them—a readiness to furnish details concerning symptoms—close observation of all treatment and its apparent effects—a proneness to exaggerate or even falsify in order to increase the sympathy they so long for. Further enquiries, too, developed the fact that this man's moral sense had become very obtuse. He had made fraudulent representations to certain persons with reference to financial and other matters, and had succeeded in committing some petty acts of "swindling." A knowledge of this might, perhaps, have been taken as invalidating the case entirely, and caused one to say that we were dealing with no disease at all, but with deliberate simulation only. I did not take this view of the case, and I think that a consideration of the details given will convince any one that a real disease of the nervous system was present. The most important observation bearing out this idea was that pertaining to the curious and rapidly-developed spastic phenomena with associated sensory disturbances, a condition which it would take a *very* clever imposter to evolve out of his inner consciousness. I would note the assistance derived here from microscopical examination of the bloody fluid alleged to have been spat up. Dr. Johnston knew nothing of the case—simply getting the specimen in a numbered vial along with several others from the hospital. He, you will have noticed, repudiated it as a specimen of sputum at all, which fully confirmed suspicions already entertained.

The next case, also in a male, presents very different features:

Case II.—J. W., aged 20, admitted October 10, 1884, with high fever, delirium and cough. He was found to have been ill for thirteen days with symptoms indicative of pneumonia, and physical examination showed the usual signs of consolidation of the apex of the left lung. During the next two days he remained quite ill. Temperature 101° to 103°; pulse 120. Delirious at nights, no sleep, and required constant watching. On the 13th defervescence took place; the morning temperature being 98°, and the pulse 68. The note of this day, however, says: "Will not put out his tongue; refuses to open his mouth for a drink of milk; will not answer any questions." And the remark significantly follows: "Except for this mental condition, is evidently much better." I may merely say that, as regards his affected lung, the process of resolution proceeded rapidly. No further elevation of temperature occurred, and he began to sleep a little at nights. It was on the days subsequent to the 13th that we observed the special symptoms indicative of the nervous disorder. On the 14th, the note describes him as "a little more rational, and willing to speak and to explain his feelings and other symptoms." On the 15th, "had a good sleep last night, is quiet

and fairly rational. On the 16th, "has fallen into a lethargic condition, which is rapidly deepening, so that he is roused with considerable difficulty. By loud speaking can be made to protrude his tongue (which is dry). Lies quite still on his back, with occasional twitchings of the hands and a moderate talkative delirium. No change in the pupils. Urine passed in bed." On the 17th, "a good night; bright, asked for his dinner; spoke quite briskly at the mid-day visit. Soon after relapsed into a soporose, semi-comatose state similar to yesterday. Can only be aroused momentarily with difficulty." On the 18th, "a repetition of the same thing; a good night; a bright forenoon, and at 1 p.m. a relapse into an apparently insensible condition." At this time no shouting, shaking or violent pinching succeeded in arousing him, and no answer of any kind could be obtained from him. Late in the afternoon he was again quite wide-awake. 19th, less stupor and delirium. 20th, "Eats and sleeps well; quite lively and intelligent; no attacks of stupor." From this time his convalescence was uninterrupted.

We learned from the nurse, during the days of his *stupid* attacks, that these might come on and go off perhaps twice or three times during the course of the day. That the condition varied remarkably we had sufficient evidence from what we ourselves observed. The most usual condition was fair intelligence in the forenoon, rapidly or even suddenly changing to a state of apparently profound lethargy and stupor at about 1 p.m. Another point was that on these days he knew his friends when they came to visit him, but talking to them made him extremely excited, and he cried profusely - so much so that the nurse was twice obliged to send them away.

To recapitulate the facts of this case: A delicate, slim young man, aged 20, nervous looking, contracts pneumonia and arrives here at the height of that disease, delirious; typical defervescence occurs, and the case (*quoad* the pneumonia) follows a normal course towards resolution. But, instead of our patient presenting the calm aspect and cheerful face of the ordinary pneumonic convalescent, we find him continuing to talk incoherently, even in the daytime, lying in a limp fashion on his back with his eyes shut. Next day found in a deep stupor, lying quite still and breathing quickly like one asleep. Then, again, he is found wide-awake and quite chatty. The sight of friends excites him and makes him weep. This condition passes off in a few days, and he is well.

The facts detailed are, I think, sufficient to warrant the diagnosis made—the hysterical condition assuming here the form of lethargy, and having been induced by the debility resulting from the acute disease.

I was recently consulted concerning the son of a gentleman in a neighboring town. The lad, aged 16, having been suffering from toothache and swelled face, became suddenly apparently insensible, remaining so several days and causing much anxiety. He then began to rouse up at intervals and appear rational, going off again in a short time into the same lethargic state. At other times he would talk and sing to himself, paying no attention to what was going on around him, and they feared his mind was giving way. I received full particulars from his medical attendant, and, replying, gave a favorable prognosis, because I looked upon the case as an odd form of hysteria in an adolescent. He was subsequently brought to the city to see me, and from my examination I was still further convinced that this was the true explanation of it. He quite recovered and continues well.

The paralyses of hysteria are always interesting. The diagnosis is often sufficiently obvious, but sometimes it is beset with many difficulties. It is notoriously *the* disorder, of all others, which offers to the charlatan and the faith-cure people the most attractive and the most lucrative field. Some time ago a lady, whom I had previously treated for functional aphonia, began to complain of certain indefinite pelvic symptoms, and finally lost power to a considerable extent in both lower extremities. I advised a stay in the city (she lived some distance away) for the purpose of trying the effect of isolation from sympathizing friends and massage. This was not done, however, and her friends took her instead to New York. Here (perhaps unfortunately) they consulted a very eminent gynæcologist. He pronounced the verdict that it would be necessary to remove the ovaries. This terrified her, her friends refused their consent, and she remained bed ridden and hopeless of any relief. Just then a bright light of the "faith-cure" or "healing by prayer" community happened along. He found, on enquiry, that she had any quantity of "faith," and he was, therefore, able to promise everything. Surely enough, she walked in a couple of days, and after a few weeks returned home satisfied that with her a real miracle had been wrought. Her

feelings of gratitude took the form of a "statement" contained in a small pamphlet headed "modern miracles," which was no doubt widely circulated, and of which I received a copy. Being a very clever lady, her "statement" tells most eloquently of her rapid descent into the confines of the valley of the shadow of death, and of her rescue therefrom by the hand of an angel in the garb of the "faith-cure" man. It might be mentioned, *en passant*, that this ministering angel was not above the sordid meanness of accepting the very handsome fee of $1,000 presented to him by his grateful worshipper. This lady is now quite well and likely to remain so, having subsequently married the man of her choice, whose temporary defection was probably the cause of the entire trouble.

It is quite justifiable to take a leaf out of the book of the "faith-curers." Positive and dogmatic statements go a long way with patients of this kind, and the employment of some visible means perhaps assists in bringing about the desired restoration. This plan was adopted in the following cases with the happiest results :—

Case III.—*Hysterical Hemiplegia.*—T. S., aged 16, servant, admitted to hospital 8th November, 1886, complaining of weakness of left arm and leg, and pain in the left side of head and neck. Three days previous to admission patient began to complain of a dull, aching, continuous pain in the forehead, not worse at any particular time. Had sensation of chilliness and slight attack of epistaxis. Took to bed at once, and next day suffered from weakness in left arm and leg, which gradually became worse until admission. Enjoyed good health until two years ago, when on waking up one morning found her left arm and leg completely paralyzed. These members were tender and painful, and of such severity as to cause her to cry out whenever touched. Sometimes the right arm and leg would become clonically contracted for a few minutes, whilst the left arm and leg would be at rest. Was quite conscious all the time. Facial expression and power of speech were not affected. Patient remained in bed until last Christmas, and at this time made some improvement, so much so that she was able to go about by the aid of crutches, and one month later was quite well. The treatment consisted in the application of liniments to the affected parts. Began to menstruate at 13½ years of age; has always been irregular, intervals between the periods varying from fifteen days to six weeks. Appetite has been good; bowels irregular. Slept well. Patient says she has been subject to fits of laughing and crying.

Upon admission.—Complains of a dull, aching, continuous pain, localized in the forehead; of numbness and weakness of the left arm and leg; and of inability to lie upon the left side. Patient is of small stature; her features are of an Indian type (her father is chief of an Indian tribe and her mother a French-Canadian); is dark-complexioned; wears a heavy, angry expression upon face; face is symmetrical; assumes the dorsal decubitus, but, forgetting herself, turns over to the left lateral. Pupils active and equal. Tongue moist and clean, and protruded in the median line. Power of flexion, extension and abduction of upper arm, extension of forearm and hand grasp of the left side apparently very weak. Whilst conversing with her she forgets the weak condition of the muscles of the upper extremity, and raises her hand to brush her hair back. Flexion and extension in left leg slightly weaker than that of right. Muscles of affected parts are well developed and firm. Tactile sense intact throughout, though analgesia is present to a slight degree in left arm and leg only. Reflexes normal. When walking, patient limps on the left leg, keeping the foot strongly everted, and puts it down to the ground as if afraid of hurting herself.

A faradic current was daily applied to the affected limbs, and she was encouraged to rub them several times every day with a liniment. She was told that this would cure her in a few days. At each visit careful enquiries were made as to the regularity with which she had carried out her treatment. The weakness of the limbs steadily improved, the gait shortly became natural, and she was discharged quite well in a fortnight.

Case IV.—*Hysterical Paraplegia.*—M.H., aged 22, servant brought into the hospital upon a chair, complaining of inability to walk.

History of the case.—Until day previous to admission patient enjoyed good health, when, upon awaking in the morning, she found herself quite unable to move her legs. Later on in the day, with assistance, got out of bed, but her knees suddenly gave away, thus precipitating her to the floor. Returned to bed and remained there until brought to the hospital. Was quite conscious. No perverted sensation. Complained of severe and continuous frontal headache, described by the patient herself as "boring" in character; it is not

worse at any particular time. Upon the morning of admission to the hospital she said her voice had suddenly become weaker, and at times she completely lost it. Also complained of palpitation, with tenderness under the left mamma. Has no vesical or rectal disturbance. Menses are irregular in their appearance, small in amount, and each period is generally preceded by pain.

Examination.—Patient is a healthy-looking and well nourished female; takes a great deal of care to describe fully and dwell at length upon her complaints. The breathing during this time is quite tranquil, but when attention is drawn to the painful spots the respirations immediately become quickened and somewhat sighing in character. Voice is weak; inclined to whispering. Lower extremities are extended and the feet are in a natural position. Skin is warm and moist. Muscles not wasted. Says she cannot move the legs at all. The plantar reflexes, if suddenly tested, causes slight withdrawal of the feet. Tactile sense is normal. Marked analgesia in the lower extremities from the feet to as high as the knees. Pressure over and below the left nipple causes patient to wince, bnt with the attention misdirected these points are no longer tender. It was now insisted upon that the patient should get up and try to walk, and this she did, but her gait was staggering; the heels were placed firmly upon the ground, the toes extended, and the plantar arches much elevated; her eyes were kept fixed upon the ground, at times she would appear as if about to fall, but this was generally done when she was well within reach of good support. Examination of the larynx by Dr. Major was negative in its result. Heart and lungs negative. Urine 54 ozs.; very pale, acid; specific gravity 1015; no sugar, no albumen. Four days later the analgesia had entirely disappeared, the painful spots no longer present, and the voice quite natural, but her gait had changed. Now patient's walk may be described as follows: Walks on the ball of the great toe of right foot, the heel is raised from the ground, the left foot is placed in advance of the right, and whilst resting upon it, the right knee-joint suddenly gives away; but patient soon regains the upright position and continues to walk as before. She was given some bread pills, had electricity applied, and used a stimulating liniment. In about two weeks the gait was quite natural, and all pains and aches had disappeared. The patient was now discharged from the hospital.

The same precaution was taken here to impress this patient from the outset with the idea that her case was quite curable; that she would soon regain the power of her limbs; and to insist upon her following certain prescribed directions very carefully.

Case V—*Hysterical Vomiting.*—H. S., aged 27, servant, admitted, complaining of vomiting and of pains in the abdomen, legs and head.

Previous history.—Enjoyed good health until six months ago, when one morning, whilst lying down, patient was suddenly seized with a sharp pain in the left lower axillary region, extending throughout the body, aggravated by deep inspiration and coughing. Vomiting set in, and for the first time. The attacks were aggravated by ingestion of food, but would also occur independently of any food taken. There was no dysphagia. The food was rejected about an hour after it was taken. The ejecta consisted of what was eaten. Even fluids could not be retained. Never had hæmatemesis. No pain after eating. Had no desire for food. Suffered from insomnia. From these attacks of vomiting, which have continued ever since in a greater or lesser degree, patient has lost much in weight and strength. About this time patient began to suffer from what she calls fits, described as follows: The aura consisted of a sense of fullness in both ears, and accompanied with a loss of hearing. This would last about half a minute, then patient would become unconscious and fall down anywhere, on one occasion cutting left eye, and, again on another occasion, whilst in one of these fits, received a black eye. These fits are not attended with any tonic or clonic contractions of any of the muscles of the body. No frothing at the mouth. Has never bitten the tongue whilst in one of these fits. The duration of a fit is from a few minutes to one or even two hours. Has had as many as two fits in one week. Says that cold water, if thrown upon her face, always brought her to her senses.

Patient is a married woman and the mother of four children, all enjoying good health except the eldest, a boy aged 8 years, who is subject to fits such as his mother suffers from.

Family history.—Mother and four sisters died of consumption. One brother, at 13 years of age, had fits similar to those patient suffers from for fifteen years, and died from their effects.

Present history.—At present patient complains of vomiting, of pains in abdomen, legs and head,

and of fits. The attacks of vomiting consist in almost everything being ejected from the stomach within half an hour to an hour after the ingestion of food. The ejecta, upon examination, are found to amount to half a pint at any one time of clear, transparent mucus fluid, acid in reaction; the microscope reveals detritus of food; no blood corpuscles; no sarcinæ. Suffers no pain after the ingestion of food; no dysphagia. Complains of anorexia, constipation and insomnia. The pains in abdomen, legs and head are very indefinitely located in these regions, their site being very changeable, and their character altered from time to time—at one moment being dull aching, and the next minute sharp and shooting. Patient says she is kept awake by these pains, and they are much increased by movement and examination. The only relief to the vomiting and pains was the frequent use of morphia.

Examination.—Patient is of average height, anæmic-looking, not well nourished; muscles soft and wasted; skin warm and moist; assumes the dorsal decubitus; evidences of recent injury to left eye, no scar seen. Patient is very restless; keeps turning her head from side to side; rubs abdomen with the right hand; respirations all this time becoming quickened, shallower and sobbing in character. This having apparently reached a climax at the end of one minute, the patient begins to cry, stops rubbing the abdomen, and turns to the right side, all this time apparently suffering very severe pain. Shortly after this the patient sat up in bed, eructated a large quantity of gas, and vomited about half a pint of thin, clear, watery-looking fluid. She now lay down in bed apparently exhausted, the respirations being rapid and sobbing in character. Pulse 80, full and regular. Respirations 36. Temperature 97°. Tongue moist and covered with slight fur in centre. Abdomen full, not distended; tenderness, amounting to hyperæsthesia, generally distributed, but more marked in right and left iliac and epigastric regions. This hyperæsthesia disappears entirely when patient's attention is elsewhere directed. No tumor made out. Liver and spleen normal. Nothing unusual in the position of the extremities. Muscular power is good. Gait natural. Tactile sense everywhere present. Analgæsia is limited to the left leg from the ankle to knee-joint. Reflexes slightly exaggerated. Heart and lungs normal. Urine 58 ozs., pale in color, acid; specific gravity 1012; no albumen, no sugar.

For the next forty-eight hours the attacks of vomiting were incessant during the day-time, but always ceased at night. Patient ejected all food taken during the day, but at night the food left at the bedside partially disappeared.

The evening after admission patient had one of her usual fits, and it is described as follows: Is quite conscious and answers all questions quite correctly. The respirations are rapid (38 per minute), shallow and sobbing. The arms are extended and the fingers firmly closed, both arms shaking as if patient had a chill. The lower extremities are natural in position. No disturbed sensibility. This condition lasted for about two minutes, and then patient assumed a quiet state. Pulse during fit was 72, full and regular. From this day until exit (6th December) patient had no return of the attacks of vomiting nor of the fits, and she improved very much, the appetite returning, sleeping well, and the bowels regular. The treatment consisted in giving her a placebo—viz., peppermint water.

Society Proceedings.

MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

Stated Meeting, March 25th, 1887.

J. C. CAMERON, M.D., PRESIDENT, IN THE CHAIR.

Culture of Tubercle Bacillus.—Dr. JOHNSTON called the attention of the Society to a new method of cultivating the bacillus of tubercle, and exhibited several cultures.

Extirpation of the Kidney.—Dr. WM. GARDNER exhibited a kidney removed by lumbar incision. The patient, aged 56, of intemperate habits, had been complaining since 4th Dec. last (three and a half months), when she took suddenly ill with rigors, fever and pain in right lumbar region. The symptoms were acute and severe—severe rigors, profuse sweating, severe pain, frequent vomiting, and continued so till the operation. The urine contained pus at intervals, and micturition was frequent and painful. The patient was very fat. On examination, a diffuse, very tender, ill-defined swelling in the right lumbar and hypochondriac region. No fluctuation. On percussion over the swelling, intestinal note. Exploratory abdominal incision over the swelling. Parietes enormously thick. Omentum extremely fat. By palpation the tumor was now ascertained with tolerable cer-

tainty to be the kidney. The abdominal incision was closed, and the kidney, containing half a pint of pus, was removed by the lumbar incision. No calculus or any other cause for the suppuration could be found. The patient was watched in hospital for two days before the operation, when the secretion of urine was almost *nil*. For the first twenty-four hours 40 ounces were secreted and passed naturally; for the next twenty-four hours none at all. On the third day she was distinctly soporose. A small quantity of urine passed in bed. The same on the fourth day after the operation, the day she died. Just before death four ounces was drawn off by the catheter. No autopsy allowed.

Discussion.—Dr. JOHNSTON said the kidney seemed to show a condition of chronic hydronephrosis, accompanied by an acute nephritis. The collection of pus did not appear of long standing; there was no pyogenic membrane.

Dr. SHEPHERD could not quite agree with Dr. Gardner's treatment of this case. Nephrotomy seemed to be called for in this case, not nephrectomy He did not think a nephrectomy should ever be performed without a previous nephrotomy, as no seriously diseased kidney could be shelled out readily. The history seemed to point to pyonephrosis, and the large amount of urine passed after the operation might be due to a collection outside. the injured kidney.

Dr. TRENHOLME referred to a similar case occurring in his practice. There was a cyst in the neighborhood of the kidney, which he tapped and drew off about two quarts of fluid. Patient's symptoms were greatly relieved, but the cyst returned, and on again tapping three pints were obtained. The patient gradually got worse, however, and the post-mortem examination showed an obstruction of a valvular nature in the ureter, near the hilum of the kidney.

Dr. GARDNER, in reply, stated that the case was not an easy one to diagnose, as the panniculus adiposis was so thick the nature and situation of the tumor could not be satisfactorily made out. The patient was desperately ill, and the operation was undertaken as a last resource.

Extirpation of the Uterus.—DR. GARDNER exhibited a uterus he had removed a week before. The patient was 47 to 50 years old. Menses ceased two years before; occasional hemorrhages continued. No serious pain, but a constant discharge. The case was then regarded as one of sarcoma. The operation was easy. Dr. Johnston concluded, however, that it was carcinoma. The tumor was in the form of series of outgrowths in the cavity of the uterus.

DR. TRENHOLME congratulated Dr. Gardner on the success of his operation, and said with regard to extirpation of the uterus for malignant disease, that while he had performed the operation some seven or eight times with much immediate success yet in *all* cases the disease rapidly returned. He now no longer regarded the operation with any favor.

Laparotomy.—DR. TRENHOLME exhibited a cyst, about the size of an egg, removed from a patient 19 years of age, confined of her first child eleven months ago, since which time she has been ill. Previous to her accouchement she had enjoyed good health, but was attacked with a severe pelvic arthritis and peritonitis three days after she was delivered of her child. Her present state is one of constant suffering, with pains in body and general nervous and gastric derangement. Temperature varies from 99° to 101° and 102°; pulse from 100 to 140. Lips and teeth exhibit usual feverish conditions. On examination, find a tumor level with Poupart's ligament filling a good part of pelvis on right side. Tumor was dense and strongly adherent to wall of pelvis; not perceptibly moveable, and somewhat nodular.

Operation.—On opening cavity of abdomen, the mass was found to coalesce with surrounding structures, and at no point was it at all possible to separate the mass. The specimen shown to-night was situated between the bladder and the uterus. As operation could not be completed, the abdominal wound was closed. The patient bore the operation well, but on the fourth day a profuse and fœtid flow began to escape from the abdominal wound, and as the state of pulse, high temperature, etc., gave little hope for continuance of life, the patient returned to her home in the townships. She bore the journey (120 miles) well, and at the end of two weeks was rather better than when she left the city.

Dr. Trenholme remarked that this was the fourth serious case of abdominal section he had had in succession, all of whom, he was glad to say, had so far recovered. One was a solid cyst of left ovary (8 lbs.); one a suppurating cyst of left ovary (12 lbs.); one a dermoid cyst (4 lbs.), and the present case.

Case of Nephro-lithotomy.—Dr. SHEPHERD related the case. He said:—

The following case is of interest, not only on account of the large size of the stone removed, but also because the question of the comparative merits of nephrotomy and nephrectomy is raised in such conditions of the kidney as existed in this case. The patient was sent to me by Dr. J. R. Johnston of Spring Valley, Minnesota, with a letter stating he suspected the man was suffering from stone in the kidney. The history of the case and condition on entrance I quote from the Hospital Report:

"W. C., aged 26, was admitted into the Montreal General Hospital on the 18th of October, 1886, with a history of long-continued pain in the left lumbar region and pus in the urine.

"*History.*—Family and personal history good. Seven years ago he first noticed that small quantities of blood were passed in the urine at the end of micturition; four years ago, blood was mixed with the urine, giving it a smoky appearance. Has seen no blood in the urine for two years. During the last seven years he has been troubled with continuous pain, not always very severe, in the left loin, occasionally radiating downward to the crest of the ilium. He occasionally has periods of very severe pain lasting for some two or three weeks, after which he is comparatively well; of late years these periods of pain have not been so frequent, and when they do occur the pain is of a sickening character, and causes morning vomiting. Sudden movement, as sneezing and coughing, brings on an attack of pain. Five years ago first noticed a whitish deposit in urine; up to a few months ago this was quite small in amount, and was passed with the morning urine. No history of renal colic.

"*Present condition.*—Is a fairly well nourished young man, of medium size, and with an anxious expression of countenance; complains of dull, aching pain in left lumbar region, and immediately below the last rib, in the axillary line, is a very tender spot the size of a twenty-five cent piece. He says the pain radiates from this point. Urine has a specific gravity of 1015, and contains 15–25 per cent. of pus. Some days there is only a trace of pus. At other times there is as much as 25 per cent. Urea, 7½ grains to an ounce. Amount of urine daily excreted, 40–50 ounces.

"By external examination no tumor or fulness can be detected on the left side."

On the 28th of October he was put under ether, and the abdomen thoroughly examined by both Dr. George Ross and myself, but no tumor could be made out. The left loin was carefully explored with the long needle of an aspirator, but failed to reach either pus or a calculus. It was concluded, from the history of the case and the symptoms, that a stone probably existed in the pelvis of the left kidney; so, after consultation with my colleagues, I decided to cut down on the left kidney by lumbar incision, and explore it.

Operation.—October 30th, the patient, being under ether, was placed on his right side, with a hard pillow under the right lumbar region, and a horizontal incision was made close below the last rib of the left side, commencing at the edge of the erector spinæ muscles, and extending downward and forward for some five to six inches. After dividing the muscles of the abdomen, the quadratus lumborum was reached, the lumbar fascia divided, and the kidney searched for; the lower end was felt at a considerable depth, in fact, it could be barely reached with the fore and middle fingers of the right hand, so the opening in the loin was enlarged by an incision at right angles to the first, making the wound a crucial one. A long needle was introduced into the kidney, and a calculus was immediately felt. The kidney being steadied by pressure from without, I made an incision down to the stone in the long axis of the organ, of some three inches. Through this incision an immense stone could be felt with the finger, but owing to its great fixity and large size it could not be dislodged. Whilst endeavoring to remove the stone, I accidentally ruptured a large artery, which ran to the lower end of the kidney, and was, no doubt, a supernumerary renal; the hemorrhage was profuse, and I immediately introduced one hand into the wound, and so prevented further bleeding, while with the other I managed to catch the bleeding vessel with a pair of long artery forceps. The stone proved too large to be grasped by a lithotrite, and too hard to be broken by a cutting forceps. I attempted to break it with a chisel and mallet, but failed, because of the difficulty of getting fixation of the kidney. The incision in the kidney was now further enlarged, and the stone gradually separated from the kidney tissue with the finger; even now, owing to the prolongations into the calices, the stone could not be removed. With considerable difficulty I managed to free the lower end of the stone, which blocked the entrance of the ureter, and lifting it up, requested Dr. James Bell to grasp it with a pair of large lithotomy forceps;

this was done, and the stone was brought away after the expenditure of considerable force. On examining the removed stone, it was seen that there were a couple of projections on it, one of which appeared to have been freshly broken off; so the hand was again introduced into the wound and a large fragment removed from a calyx; other smaller pieces were also removed. As the patient had been already an hour on the table, and was becoming weak from shock and loss of blood, no further exploration took place.

During the operation not a single drop of pus was seen; none apparently surrounded the stone, which was quite closely embraced by the surrounding kidney substance. So far as naked eye appearances went, the part of the kidney seen was perfectly healthy. At one time, I thought it would be necessary to remove the kidney, as it seemed impossible to remove the stone without it, but the very healthy appearance of the portion of the organ seen (the lower end), and the absence of pus, determined me to persevere, and, if possible, remove the stone and leave the kidney till the condition of the other could be ascertained. At no time during the operation could the kidney be brought to the surface, and the operation had to be performed by feeling more than sight.

After washing out the wound thoroughly with a 1: 2000 solution of corrosive sublimate, and introducing a large drainage tube, the wound was brought together with silk sutures, and dressed with sublimate jute pads. At the close of the operation the patient was in a fairly good condi tion, and did not show much evidence of shock; and, although he had lost a considerable amount of blood, his pulse was full and strong, and not more than 80. The weight of the removed stone and fragments immediately after the operation was 4 oz., 7 drachms. It measured 3½ inches in length, and 9 inches in circumference, and consisted entirely of triple phosphate.

After the operation, which took place at 2 p.m., the patient did not pass any urine till noon next day, when he voided 7½ oz. As there had been a great deal of oozing, the wound was dressed next day. Temperature, 101°. Pulse, 120. He still had vomiting from the ether.

Nov. 1. He passed 32 oz. of urine which was free from pus and blood.

For some time the patient progressed slowly toward recovery; his temperature ranged between 98° and 100°, and the amount of urine from 25 oz. to 50 oz. daily. The wound, which was not very sweet, and from which came large quantities of urine, gradually healed, and the tube was removed in the early part of December. He now began to have high and irregular temperature, with some sweating; from the 10th to the 25th of December his temperature ranged from 98° to 102°, and for several days after reached, in the afternoon, as high as 104°-105°. Fearing that some collection of pus was forming about the kidney, I reopened the wound, introduced my fingers, and explored the pelvis of the kidney, but without result, except that a few flakes of calcareous matter were brought away. It was now decided to cut down and remove the kidney, but the patient quite unexpectedly took a turn for the better, and improved so much that, in the early part of January, he was able to go about the ward, enjoy his meals, and gain flesh. The sinus in his right loin never healed, but continued to discharge large quantities of urine with a small amount of pus. At this time my service at the hospital having expired, I only saw my patient occasionally. His temperature was for several days quite normal, and then for a time would range as high as 101°. The amount of urine varied from 30 oz. to 40 oz. daily. I saw him early in February, going about, and apparently in fair condition. On the 10th of February he suddenly became jaundiced, his temperature rose to 102°, and he had severe sweatings. I saw him, and examined his side carefully, but could discover no evidence of any collection of pus about the wound, and the amount of urine reached 40 oz. daily. The fistulous opening in his side discharged urine freely, and a very small amount of pus stained the dressings. He gradually became worse, and died comatose on the 14th of February, three and half months ofter the operation.

The autopsy was performed by Dr. Wyatt Johnston, pathologist to the hospital, and the following is taken from his report: "Body jaundiced. In left lumbar region, a depressed cicatrix, about two inches long, is seen with a sinus toward the centre, from which fetid pus can be squeezed out. On opening the abdomen, a large oval mass is seen in left lumbar and extending up into the left hypochondriac region. This mass has a quantity of fibrous exudation surrounding it, and is very difficult to remove, being firmly attached to the lumbar muscles, spleen, and vault of the diaphragm. The retro-peritoneal glands are acutely

swollen, but show no signs of suppuration. The aorta and vena cava are not directly involved in the mass, and can be readily dissected off. Near the inferior extremity of kidney, two inches above the crest of the ilium, a small artery, one and a half inches long, running directly from aorta to kidney, is seen; it is obliterated, apparently from a ligature. The fatty capsule of the kidney is densely infiltrated with fibrous tissue, and cannot be removed without tearing the kidney substance; the left kidney itself is greatly enlarged, and forms a fluctuating mass weighing nearly 1,000 grammes. On opening the pelvis, a little fetid pus escapes, and the sinus in the loin is seen to open into it. On palpation a small calculus mass can be felt towards the cortex in one of the calices of the kidney; the calculus is the size of a hazelnut, and appears to be broken off in one spot. It is enclosed in a small pocket of pus. The ureter immediately below the pelvis of the kidney is completely obstructed, and its walls are much thickened. On incising the kidney along its convexity, it is found to consist in the upper portion of a series of large communicating sacs containing over ten ounces of fetid pus. These cavities do not communicate with the sinus or the pelvis of the kidney, but are completely shut off from the rest of the kidney by thick, fibrous walls, showing that the disease is of long standing. Within these sacs lie five or six irregular branched calculi, varying in size from a bean to a walnut. The lower fourth of the kidney contains a considerable quantity of healthy renal structure. Bladder and lower part of ureter normal. Right kidney double normal size, and looks to be perfectly healthy. Liver shows numerous enlarged lymph glands lying beside the bile ducts, but bile can be easily expressed. Other organs healthy."

There is not the slightest doubt that this patient died of septicæmia, due to the fetid abscesses in the upper end of the kidney. These could not be diagnosticated by external manipulation, and from the fact that the part of the kidney seen at the operation was healthy in appearance and contained no pus, the condition of its upper end was not suspected. So far as the operation itself went, it was successful, but one lesson may be learned from this case, viz., that with a large stone in the pelvis, it is almost impossible to have a kidney which has not undergone grave changes, and its thorough exploration by incision is indicated. Had there been pus around the stone and the kidney tissue not looked so healthy, I should have attempted to remove the kidney, but I had in my mind a specimen in the Museum of the Medical Faculty of McGill University, where the pelvis of each kidney, in a man, is filled by an enormous stone, while the surrounding kidney structure is comparatively healthy, and where there was not a drop of pus or the sign of disorganization. In my case, however, although in the immediate neighborhood of the large calculus the kidney was healthy, stones unconnected with that in the pelvis. The kidney was placed so deeply and situated so high up that, with even the very extensive lumbar incision which was made, it could not be properly explored, and I very much doubt if it could have been successfully removed by the loin. Its removal, owing to the numerous adhesions to important organs and its location, would have been a matter of serious difficulty, if not an impossibility, even by abdominal incision for at the autopsy by the combined abdominal and lumbar incision it was only by cutting freely the surrounding parts that its excision was accomplished.

In such a case incising the kidney in every part, evacuating the pus, and removing the calculi would be the proper procedure. Diseased kidneys which enlarge downward are much easier to remove by lumbar, and also abdominal incision, than those which enlarge upward, and are wholly under cover of the ribs.

There is another point about this case which is worthy of notice, and it is this: When a kidney is highly placed it may be enlarged so as to form a considerably sized tumor, which cannot be detected by the most careful palpation, even when the patient is placed under ether. The failure to find the stone by needle exploration, before the operation, was due to the same cause—the high position of the tumor and its great depth.

In connection with this case I might mention one reported by Prof. Guyon, of Paris, which is very similar to the one narrated above. In Guyon's case, however, a distinct tumor could be felt externally. After cutting down on the tumor and incising it he found the pelvis of the kidney completely filled by an enormous stone, with processes extending into the calices, these processes were cut off with forceps, and the large calculus extracted with difficulty; after the removal of the smaller pieces, the pelvis of the kidney was explored with the finger and sound, and no more

stones could be felt. The patient died some two weeks after from hæmoptysis, and at the autopsy it was found that the kidney was so adherent to the surrounding parts that it probably could not have been extirpated. Several more stones were found in the upper end of the kidney in cavities separated from the pelvis by connective tissue. Prof. Guyon, in the course of his remarks on this case, states that here nephrotomy was preferable to nephrectomy, and that had the kidney been properly incised the other stones would have been found, that in such cases the kidney should be freely incised and every nook and cranny explored; he holds that if this were done in cases of calculous pyelitis nephrectomy would never be called for.

Formerly it was feared that free incision of the kidney would cause severe and dangerous hemorrhages, but experience has taught surgeons that the danger is an imaginary one, and that kidneys which are much disorganized may be incised without fear of bleeding, and that even in healthy kidneys the hemorrhage from incisions is easily and permanently controlled by pressure.

In such cases as the one above narrated, where the stone is of great size and the kidney is enlarged, the mere extraction of the stone in the pelvis should not satisfy the operator; he should thoroughly examine the kidney in every part by free incisions so as to be sure no calculus is left behind. External manipulation of the kidney is not sufficient to detect stone, and in such cases as my own, even exploration through the kidney pelvis would fail, without further incision, to detect calculi unconnected with that in the pelvis.

Up to a short time ago the largest stone removed by lumbar incision was under two ounces in weight. Lauenstein reports a successful case of removal of a large calculus (weighing 25 grammes and composed of the triple phosphates) from the pelvis of the kidney. He had to break the stone with a lithotrite before he could extract it. In his paper he states that it was the largest stone removed up to that time, though not the heaviest. Three months after the operation, the sinus in the loin had completely healed, and when the article was written the patient was perfectly well.

Dr. John Neill, after relating a case of large renal calculus found after death, quotes from *Cyclop. Pract. Med.* the following case: "A remarkable instance of such calculus occurred in the person of a natural daughter of Sir Richard Steele. No nephritic symptoms took place until shortly before death, when severe pain was left in the region of the right kidney, fever followed and speedily proved fatal. A calculus of oxalate of lime weighing 7½ ounces was found in the right kidney, which was so thin by absorption as to be reduced to a mere membrane. In this instance the stone could be felt, during life, through the loins, inducing a belief that the kidney had become ossified (Catal. Museum of Royal Coll. Surg., London. Note by John Hunter)." In this case there was evidently but little suppuration, or the stone could not have been so easily recognized.

Mr. Victor Horsley, on Sept. 16, 1885, removed a stone weighing 2¼ ounces from the pelvis of the kidney of a middle-aged woman; ten days after she was doing well. It was the largest stone removed from the kidney up to that time.

Mr. W. L. Brown reported a case before the Birmingham and Midland Counties Branch of the British Medical Association, in May last, where he had removed from the kidney by abdominal section a stone weighing 11 ounces. The kidney tumor occupied the right half of the abdomen and contained three pints of pus. The cut edges of the cyst were stitched to the abdominal walls and the cavity drained. The patient died suddenly eleven days after the operation from heart clot. So far as I know, the stone in my case is the largest ever removed by lumbar incision.

Discussion.—Dr. Bell said that he had watched this case with great interest for some time, and considered the question of the best method of dealing with such cases a very difficult one. It would be impossible to drain so many pus cavities even if all the outlying calculi could be removed. Excision of the whole kidney would, perhaps, have given better results, though such an operation was scarcely indicated at the time.

Dr. Johnston said that the post-mortem showed that it would only have been possible to remove the kidney by resecting two or three ribs, so firmly attached was the mass about the kidney.

Stated Meeting, April 15th, 1887.

T. J. Alloway, M.D., 2nd Vice-President in the Chair.

Yeast Saccharometer.—Dr. Reed showed a neat and useful little piece of apparatus called the Emhorn's Yeast Saccharometer, for qualitative and quantitative estimation of glucose in urine.

Dr. RUTTAN referred to the recent introduction of alphanaphthol and thymol as tests for the presence of sugar. These, if reliable, were far too delicate for clinical purposes, as the sugar normally present in the urine can be shown when the latter is diluted one to two-hundred. He also referred to the periodic absence of excess of glucose in diabetic cases, when under proper diet, and stated that proportion of acetone and aceto-acetic acid is usually increased during these intervals. The iodoform test for acetone was probably the best, but required to be carefully made. Nitro-prussiate of sodium and sulphuric acid gives a fine rose-color with urine containing acetone. This reaction, however, has not been shown to be peculiar to acetone.

Unusual cases of Hysteria.—Dr. GEORGE ROSS then read a paper on some unusual cases of hysteria, which appears in full in the present number of this JOURNAL.

Discussion.—Dr. STEWART said the first two cases described by Dr. Ross were interesting and very peculiar. While it may be wise, in acute symptoms in young persons to give positively a favorable prognosis, there is no doubt many cases of paralysis of hysterical origin are perfectly incurable.

Dr. SHEPHERD referred to the case of a young student who had hysterical vomiting, lasting for months, and resisting all treatment. He was so reduced in flesh that the tranverse duodenum could easily be felt through the abdominal walls. He was sent home, there got better at once, and returned well and fat. He believed in a positive statement of cure in cases of hysteria, and referred to a case of hysterical spine of long standing that had been cured by the faith cure.

Dr. WILKINS felt convinced that one cannot be too dogmatic and positive in promises of cure in hysterical casse. He referred to a recent case in hospital of hysterical contraction of the muscles of one arm. The case was at first very puzzling, but when hysterical symptoms were made out, a certain cure was promised, and the patient put under ether, and on recovering from the effects of the anæsthetic was completely cured. The mystery of what was done to them while under ether often effects a cure.

Dr. REED said that real affections of the joints may occur with hysterical symptoms in the same patient. He referred to a case in the General Hospital where hysteria was diagnosed, and yet there was a real affection of the knee-joint.

Dr. GEO. ROSS, in reply, said that it was very difficult, in chronic cases, to make a positive prediction. Charcot states that there are actual changes in the cord in many hysterical cases of a chronic character.

Stated Meeting, April 29th, 1887.

Dr. TRENHOLME, IN THE CHAIR.

Monobrachial Chorea, not post-Hemiplegic.—

Dr. WOOD exhibited a case of monobrachial chorea, not post-hemiplegic, in a boy 15 years of age. Had variola in the winter of 1885-86. Discharged from hospital in January, 1886, with ulceration of right cornea; otherwise well. The attack of chorea began in March, two months after discharge, and has continued since. He never had paralysis, rheumatism, or any cardiac trouble, and now his general health is good. When asleep the choreiform movements cease, and he exercises a certain amount of control over them at will. Only when he attempts to co-ordinate his arm and hand muscles is the chorea very apparent. He cannot use his knife or fork at table, but can chop wood, move furniture, and do similar work. Pressure over the median nerve near the elbow controls the movements. He had been attending the public school, where the hours extend from eight o'clock in the morning until five in the afternoon. He was kept at home during the past two months, and he has decidedly improved. Weir Mitchell says that cases of localized or limited chorea are not the result of embolism, but are generally due to acquired habits, and he calls such cases "habit chorea." Dr. Wood did not see how his case could be so classed.

Discussion.—DR. BULLER said this case was particularly interesting in view of the recent theories regarding the influence of eye lesions in producing general nervous affections. One physiologist claims that most nervous affections are traceable to ocular affections. The irritation of the ciliary nerve produced by a shrunken eye-ball has caused general epilepsy. Again, chorea has been traced to weakness of the ocular muscles; difficulty of co-ordination of the eye muscles is productive of many nervous affections more or less severe. It is a common cause of nervous headache. Applying these general principles to the case exhibited, Dr. Buller called attention to the condi-

tion of the eye on the affected side; the patient was quite blind, the eye was shrunken, and there was infiltration of the cornea, though not excessively painful to the touch. He concluded that there was at least a possibility that this peculiar chorea was due to the irritation of the shrunken eye-ball. He suggested enucleation of the useless eye as a possible means of cure. The fact that the boy's condition improved after removal from school might be due to the relief thus afforded to the ciliary muscles.

Dr. Trenholme referred to the use of arsenic in the treatment of chorea. As usually administered (three to five minim doses) he did not think it was of much remedial value, but he had obtained good results by gradually giving a large quantity. He made a practice of beginning with three minims of Fowler's solution three times a day after meals, increasing this to five minims, and continuing the administration till the toxic effects were visible, then discontinue for a time. He usually preceded each meal with a dose of saccharated carbonate of iron.

Pathological Specimens.—Dr. Johnston exhibited some interesting specimens from a case of chronic hydronephrosis. The case occurred in the practice of Dr. R.L. MacDonnell, Dr. Johnston was unable to give the history of the case.

Progress of Science.

CHRONIC CATARRHAL GASTRITIS.

A Clinical Lecture Delivered at the Hospital of the University of Pennsylvania.

BY WILLIAM PEPPER, M.D., LL.D.,

Professor of the Theory and Practice of Medicine, and of Clinical Medicine, in the University of Pennsylvania.

Gentlemen:—I shall ask your attention to a case recently admitted into the hospital, in which there is some obscurity in the diagnosis. The patient, R. F., age thirty years, a clerk by occupation. The family history is good. He is one of twelve children, 10 of whom are living, and all are in good health with the exception of himself. He had the ordinary diseases of childhood, including the scarlet fever. In 1880, at the age of twenty-four, he had a spell of constipation, followed by pain in the bowels, which was severe enough to double him up. This was attended with high fever, and his physician told him that he had inflammation of the bowels, due to a large collection of fæces. The attack lasted one week, and since then his digestion has been feeble. It seems extremely probable that the diagnosis made at that time was correct. The man may have had an attack of perityphlitis from impaction of the cæcum, a very common occurrence, indeed, and this would explain the symptoms which he has mentioned. In this affection there is fever; the decubitus of the patient is dorsal, with the thighs flexed, so as to relax the abnormal walls. Whatever may have been the nature of this attack, however, it was noticed that after it the digestion became impaired; then he began to have a feeling of weight in the pit of the stomach, and regurgitated a clear, watery fluid. This has continued, and other symptoms have been associated with it. For the last three years he has vomited frequently, sometimes immediately after eating and sometimes not for three or four hours after taking food. On the whole, the vomiting has been more frequent in the evening, and he then rejects partially digested food which he has taken during the day. There is marked flatulency, gas being discharged both by the bowel and by the mouth. The bowels have been constipated, and he has found it necessary from time to time to take a laxative. He has lost flesh and strength and has become very weak and pale.

He was admitted to the hospital nine days ago. On examination we find a man with a long, narrow chest, with imperfect expansion at its upper part. There are, however, no physical signs of disease either of the heart or of the lungs. The belly is scaphoid. On palpation, I find no evidence of induration at any point. The area of hepatic dullness is normal, the spleen is not increased in size. There is rather excessive pulsation of the abdominal aorta, but this is due to the great emaciation and retraction of the abdominal walls. At one point in the abdomen I feel a little body not larger than the least joint of the little finger. This feels like a small gland. It is probably of no importance, and could not be detected if it were not for the great emaciation, which enables me to feel the segments of the vertebral column with the greatest ease. When he was admitted it was quite evident that the stomach was considerably extended. The tympanitic resonance extended to the lower border of the sixth rib at the left nipple line, and downward to the transverse umbilical line, and laterally from the left axillary line to the right costal margin.

As soon as he was admitted he was placed upon the use of peptonized milk, and has not vomited since. He feels better and looks better. Enumeration of the red corpuscles of the blood gives 4,600,000 per millimetre. The hæmoglobin is reduced to 65 per cent. of the normal. In addition to the milk he has taken finely minced meat, slightly boiled. The only medication he has received has been the administration of five drops of chloroform with half a drachm of the compound tincture of cardamon four times daily. He has had no fever. The tongue is extraordinarily smooth. There are scarcely any papillæ visible on his tongue.

Here we have a young man, coming from a remarkably healthy family, living in a healthy district, who, six years ago, had an attack of pain in the bowels, with obstruction and fever lasting a week, leaving behind it, so far as we can determine, no organic change. Then his digestion fails. He takes care of himself, he consults physicians and regulates his diet, but fails to get relief. He then leaves his native country, Ireland, and comes to America, where he pursues a healthy occupation and still goes down more or less rapidly until he reaches a degree of emaciation and anæmia which is remarkable. While it is true that each drop of this man's blood contains almost as many red blood globules as it should, it is also true that he is very far from having as many drops of blood in his body as he ought to have. While he has not what might be called qualitative anæmia, he has a high degree of quantitative anæmia. The composition of this man's blood is fairly good. It is 20 per cent. off in red globules and 40 per cent. in hæmoglobin, but I should think that it is more than 50 per cent. off in the quantity. Not only that, but during the past three years there has been almost constant vomiting. During this time he has gone as long as a month without vomiting, and then he has for weeks, in succession, vomited every day, in spite of medical treatment and regulation of the diet.

The first thing that would be suggested by a case of this kind is grave organic diseases. Has he not some malignant disease? The patient has not reached the age at which malignant disease, as a rule, appears. His good family is against it although this joint is not of much diagnostic value. The case has lasted a long time for a case of cancer. It has lasted six years, and for three years has been quite pronounced. The trouble appears to have begun with an acute inflammatory attack, whereas malignant disease begins insidiously. Careful examination has failed to reveal the presence of any tumor or hardness. While the man is very pale, he does not present the cachexia usually found in advanced cancer. Cachexia is, however, so uncertain that it is not of very great diagnostic value. It is valuable when present, but its absence means little or nothing. The matters vomited have consisted chiefly of partially-digested food. The man has never vomited blood. The obstruction of the bowels has not been as great as we should expect to find it where there was cancer of the stomach, causing as frequent vomiting as this man has presented. Usually, there has not been much pain. These symptoms are all against the idea of cancer of the stomach, and the direct physical examination fails to show any hardening or thickening whatsoever, with the exception of this little body, the size of a cherry, which may be a little mass of hardened fæces, or a hardened mesenteric gland. We may, there-fore, dismiss the idea of cancer.

We should, in the second place, naturally think of simple ulcer of the stomach. In regard to that, we cannot be so certain as in regard to the existence of cancer. We cannot assert that this man has not had ulcer of the stomach. This affection occurs, by preference, in young people, and in cases that are anæmic and debilitated, as this man has been. It causes frequent vomiting, but does not produce obstinate obstruction of the bowels; but in ulcer of the stomach there is nearly always considerable pain and this pain is increased by the ingestion of food and by pressure. There is tenderness over the ulcerated spot. The pain and tenderness are often more marked in simple ulcer than they are in cancer. This man has no tenderness, and there has been a marked absence of pain. In the course of ulcer of the stomach, where the vomiting is as frequent as it has been in this instance, some blood is very apt to be brought up. None has been vomited at any time by this man. While, therefore, we cannot assert positively that ulcer of the stomach is not present, yet the symptoms do not point strongly in that direction.

What other condition would explain such long-continued and serious gastric disease? Chronic catarrhal inflammation of the mucous membrane of the stomach would account for it. This is far more common than either cancer or ulcer of the stomach—in fact, it is among the most common affections. It is true that it is usually met with in its milder forms, which we speak of as catarrhal dyspepsia, but it is also true that when chronic catarrhal gastritis is present in a marked form, it produces very grave symptoms indeed. The constant irritation of the stomach, and the resulting weakness of the stomach walls, induces relaxation and tendency to dilatation of the organ, not so certain as where there is mechanical obstruction of the pylorus; but relaxation and dilatation of the stomach is a very common result of chronic gastritis. If the case has lasted a long time, the degree of dilatation may be enormous. At the same time, it is to be noted that the dilatation of the organ, and the interference with its normal secretion, prevents the proper digestion of the food, which undergoes fermentation with the development of gas. The stomach then becomes irritated, and vomiting of partially digested food follows. If the case is one where a good deal of nervous irritation is caused, the stomach becomes sensitive; then the vomiting may become extremely frequent. In other cases, where the stomach is not so irritable, the partially-digested food is passed into the bowel, leading to irritation, flatulency and diarrhœa. The man has had a good deal of vomiting, but not much diarrhœa. The inevitable result of the irritation of the stomach and interference with digestion is loss of flesh, strength and color, until finally the patient reaches a high degree of emaciation, debility and anæmia.

The case is one of extreme chronic catarrh of the stomach, with a high degree of dilatation of that organ. There is one condition which, of late

years, we have learned to look for in connection with cases of this kind, and that is non-malignant obstruction of the pylorus. The irritation of the coats of the stomach may extend to the deeper structures, and the amount of interstitial thickening, followed by contraction, may lead to obstruction of the pylorus. When such is the case, while there is no tumor to be detected, there are other symptoms of pyloric obstruction. There is vomiting and dilatation of the stomach, with a high degree of emaciation, weakness and anæmia, without cancerous cachexia. I dwell upon these points because it has been proved that when this condition exists, and when dietetic and medicinal measures fail to give relief, it is justifiable to open the stomach and dilate the structure of the pylorus. This has been done in a number of cases, where the history has been similar to that which we obtain in this instance, and where the dilatation of the contracted pylorus has been followed by great relief, and in some cases by extraordinary cures. In some cases the operation has resulted fatally. I do not know whether or not it will find a place for itself among the recognized operations of abdominal surgery, but it is one of the procedures which must be considered in a case of this kind, where the evidence points to the existence of pyloric stenosis of non-malignant character.

How are we to determine whether or not such stenosis exists? Only by the effect of treatment; for, as I have said to you, chronic catarrhal gastritis may produce all the symptoms that would be present if the stenosis existed, but in the one case treatment would give relief, while in the other it would have no effect. In treating a case of this kind, the first thing to be borne in mind is that the food should be administered in small quantities, at regular intervals, and should be of such a character as throw the least work upon the diges tive processes. In this case we have employed artificially-digested milk, giving three pints of peptonized milk during the twenty-four hours. The only solid food allowed has been one ounce of boiled, scraped meat. I was anxious to, see the effect of this dietetic treatment influenced as little as possible by the action of drugs, and have, therefore, only given him a little chloroform and a simple carminative. The result of this treatment has been so satisfactory that we shall continue it. The man has not vomited once since admission, and has felt quite comfortable. The development of flatus has been much diminished by the use of peptonized milk, and the gastric tympany has been lessened. As long as the patient continues to improve, this simple treatment will be kept up. —*Polyclinic.*

THE MANAGEMENT AND TREATMENT OF ACUTE BRONCHITIS IN CHILDREN.

By S. Henry Dessau, M.D., Of New York.

Before speaking of the treatment proper, I would like to call your attention to certain hygienic conditions under which the little patient should be placed as well as the adoption of prophylactic measures, which in delicate children is of prime importance. Regarding prophylaxis in bronchitis, nothing can be better than establishing the habit of cold bathing for the infant. This may be carefully regulated by the use at first of sponging with cold water from the head down to the shoulders and spinal column while the child is in the tepid bath. Afterward douches and the whole bath should be given successively as age advances. The cold bathing strengthens the integuments and prepares the body for sudden cold or other atmospheric influences.

Most of our patients, children affected with subacute bronchitis, are not usually considered sick enough to be kept in bed. The youngest ones have to be carried in the nurse's or mother's arms, even if very sick; while the older ones, if sick enough to be kept in bed, are often allowed to remain in their ordinary clothes. I often find among the poorer classes, and occasionally in families of the better class, the little children almost suffocated with the number of clothes they have on, irrespective of the temperature of the weather. I believe such heavy dressing only exposes the child to contract an additional catarrh upon the slightest change of the weather. If the attack is not severe enough to confine the child to the bed, I direct it to be kept in the room in its ordinary dress; but if sick enough to go to bed, the clothes are to be removed, and nothing but the night-dress worn. Infants while sick should be at all times loosely dressed, and when carried about should be wrapped in a light shawl or blanket. It is a commonly received idea that children affected with bronchitis, however slight, should be kept indoors. My experience in a dispensary practice of twelve years in children's diseases has shown me that, except in severe cases, this is not necessary for a prompt recovery, providing always that the child is kept warm by suitable covering while in the open air. In private practice, however, as there is no occasion for the child to go out of doors, it should be kept in the room.

The temperature of the room should be kept at from 65° F. to 70° F., and proper ventilation secured at night by keeping one or more windows drawn down from the top for about eight or ten inches. One great source of all catarrhs in this city, in my opinion, is the intense heat which is kept up in the dwellings during the entire winter. Even in the rooms of tenement houses this is often found to be the case in an extreme degree. The sudden change experienced on going into the street or even another room or hall-way, or coming from the street into the apartment, will inevitably produce the condition of "catching cold." This may be explained, according to Rosenthal, by the superficial blood vessels of the body becoming paralyzed after one has remained for any length of time in an overheated apartment, while the body temperature rises at the same time. If the over-

heated body, with its enormously dilated superficial blood vessels, is now suddenly exposed to cold, the body temperature descends below the normal, and the blood of the superficial parts, so suddenly cooled, courses through the internal organs and cools them of more suddenly than would be the case from the simple influence of cold, without the previous influence of greater heat. This sudden cooling acts as an injurious influence in causing congestion in this or that organ, especially if it is already enfeebled, and hence less resistant. It will always be of advantage, if the attack is in any way severe, to have a certain amount of moisture in the shape of steam diffused through the air of the room. This can be easily done by keeping water boiling over an alcohol stove. The addition of a small quantity of turpentine will be found highly useful and refreshing.

The therapeutics of bronchitis may be regulated according to the order of the tubes involved, and the rise of temperature which accompanies the disease. In mild cases, where the catarrhal process is limited to the larger tubes, and there is very little or no increase of temperature occurring in infants under six months of age. I have found such remedies as the wine of antimony in doses of one-fourth to one-half drop, in combination with the wine of ipecac in doses of one-half to one drop, repeated every hour, prove highly efficacious. Small doses of the golden sulphuret of antimony, one-twentieth of a grain triturated with sugar of milk, and repeated hourly, have also given satisfactory results. A stimulating embrocation, as equal parts of spirits of turpentine and olive oil, applied with a piece of flannel to the back and front of the chest until reddening of the skin is produced, will prove of additional service. In children over six months of age, similarly affected, the dose of the antimonial and ipecac wines should be increased to one drop each. I have also found the tincture of bryonia of the German Pharmacopœia, in doses of one-half to one drop every two hours, of benefit in some cases. In a few persistent cases of subacute bronchitis in older children, the inspissated juice of *Sabal serrulata*, or saw palmetto, has given gratifying results. The dose is from five to twenty drops three times daily. Where there are evidences of a strumous constitution, the emulsion of cod-liver oil, with or without the hypophosphites of lime and soda, will be found all-sufficient.

In severe cases of bronchitis accompanied with an elevation of temperature, and where the medium-sized and smaller tubes are involved, I am in the habit of giving tincture of aconite root in doses of one-half to one drop, according to age, repeated every hour, with the result of reducing the temperature, and establishing resolution. If a spasmodic element of the cough is manifest to any extent, much benefit may be derived from the tincture of belladonna in drop doses, given alternately every hour with the aconite. It will be remembered that in the early stage of inflammation of a mucous membrane the secretion is at first diminished, the membrane becoming dry and swollen. Afterward the secretion is increased in quantity, while at the same time it becomes altered in quality, being viscid and tenacious. Hence in the early stage of an acute bronchitis, where dry, subcrepitant or sonore-sibilant râles are heard, the practice which is often followed, of giving stimulating expectorants, such as the carbonate and muriate of ammonia and squills, in free doses, can only result in aggravating the existing condition.

Much more successful results, in my opinion, will be obtained by giving such remedies as will relieve the congestion and swelling of the mucous membrane, through acting upon the force of pressure of the blood circulation, or by derivative action upon distant organs whose functions are in a measure compensatory in character. Such is the effect of aconite that I have mentioned, and veratrum viride that I have not used. Nitrous ether, which is a depressor of arterial tension, as the other nitrites are known to be, which thus explains its diuretic effort, is a time-honored remedy in bronchitis, and may be cited as representing the latter class. Spirits of Mindererus, from its sudorific action upon the skin, is always indicated. A favorite combination of mine, which has seldom failed to render me valuable service, is: Liq. ammon. acet., f ℥ iv; spts. ether. nit., syr. ipecac., aa f ℥ iss; syr. senegæ, f ℥ j; syr. limonis, f ℥ j. M. ℥ j every three hours. This formula has been published in an incomplete form in Johnson's Formulary of Wood's Library, and I here take occasion to make correction of the error due, no doubt, to the printer's oversight. I am in the habit of employing this formula daily in my practice. Its use is not confined to the treatment of bronchitis alone, for I find it equally serviceable in the whole range of acute pulmonary complaints as occurring in children. I do not regard the small amount of senega present as having an expectorant action, but more, if you like, of a specific effect upon the ciliated columnar epithelium of the bronchial tubes.

I seldom have to resort to opium except in combination with camphor, as in the tr. opii camph., when it is administered in five to ten-drop doses, principally at night, as a sedative for the cough.

Hot poultices of flaxseed, sprinkled on the surface with mustard, made large enough to encircle the entire chest and covered with oil-silk, form an important addition to the treatment of the severer grades of bronchitis. Pieces of tape extending across the shoulders should bet acked to the cloth holding the poultice, in front and behind, to prevent the poultice from slipping down. The effect of the heat and moisture, together with the counter-irritation produced by the mustard, which can be regulated in amount to suit the demands of the case, are unquestionably of the highest benefit. Where the bronchitis has extended to the infundibula and air vesicles, and catharral pneumonia has developed, I have every reason to believe that a continuous mild counter-irritation, with the

flaxseed poultice lightly sprinkled with mustard, has often been the principal means of enabling me to witness the successful termination of my cases. The poultice should be changed about three times during the day and once through the night. Spongio-piline, wrung out with hot water, answers every purpose of the poultice, besides being cleaner and less troublesome to apply; but, being expensive, it can be afforded only by wealthy families. West recommends the spongio-piline to be sprinkled with a stimulating liniment, such as lin. camph. co., ℥j; tr. canth., tr. opii, aa ℥ ij. M., when it is desired to produce counter-irritation; but I have found the ordinary mustard, lightly sprinkled over the inner surface, do all that was wanted.

When the râles have become soft and bubbling, and not disposed to clear up quickly, I have found three to five drops of a saturated solution of muriate ammonia, given every two hours, have the happiest effect in clearing up the excessive secretion, notwithstanding in some cases evident signs of catarrhal pneumonia were present. It is important, especially in subjects of a scrofulous and rachitic diathesis, to establish a healthy condition of the mucous membrane of the bronchial tubes as soon as possible. In these cases there is a general tendency for some large ronchi to remain scattered over the lungs after the more severe symptoms have disappeared. The administration of tonics, as quinine and iodide of iron, together with cod liver oil, is here clearly indicated. Counter-irritation to the back, in the interscapular space, with tincture of iodine, should be used, as it is also rightly regarded as a valuable means of promoting absorption of the enlarged bronchial glands, which I have shown are likely to exist.

Inhalations have recently been introduced in the treatment of bronchial catarrhs, and have been found to give valuable assistance in hastening a cure. I have had little, if any, experience with them in children, but can see no reason why they might not be effective with those over two years of age. They may be used in the form of steam inhalations from a croup-kettle, the water being medicated with turpentine, terebene, iodine or eucalyptus, or whatever article may be desired. Older children may submit to the use of the hand atomizer, in which the wine of ipecac, as recommended by Ringer, or Dobell's solution, which is alkaline and antiseptic, may be employed.

In those cases where bronchitis occurs together with diarrhœa as the result of changes of temperature, the antimonial wine in drop doses, repeated hourly, will be found to have a decided effect in relieving both affections at the same time. When the bronchitis occurs as a complication of summer diarrhœa, counter-irritation to the chest with the flaxseed and mustard poultice, together with the administration of stimulants, is chiefly to be depended upon. In infants or weakly children, where a tendency to collapse of the lung is apparent, crying should be provoked and encouraged as much as possible, and alcoholic stimulants freely given. In such cases Day advises the child to be laid face downward, as it assists breathing, and prevents the tendency of the secretions to gravitate to posterior and lower surface of lungs. The same author also suggests that when vomiting becomes a troublesome symptom, the medicine be given immediately after a spell, in order that it may have a chance to remain longer in the stomach and some portion of it be absorbed.

Jacobi wisely advises plenty of water as a drink for the purpose of supplying a fluid for the liquefaction of the viscid secretions, and so promoting their easy expulsion. It will also prevent caseous degeneration by keeping the cells bathed in moisture that will hasten absorption.—*College and Clinical Record.*

THE DIETARY OF BRIGHT'S DISEASE.

BY J. MILNER FOTHERGILL, M. D., EDIN., HON. M. D. RUSH, ILL.

The importance of the dietary in Bright's disease is all the greater in that medicines exercise comparatively little influence upon its progress.

The form of Bright's disease here treated is the chronic one, where the kidneys are "granular," "contracted" "gouty" or "cirrhotic." This is a slow development of connective issue (a parenchymatous inflammation) throughout the structure of these organs, which contracting—as is its nature destroys the secreting and tubular portions. Some portions are destroyed as regards function, while others remain normal and uninjured. At last the destruction is so extensive that the kidneys become quite inadequate to carry out their duty, and the organism perishes.

The opinion of the profession (as regards its members under fifty years of age) is that the main cause of this chronic inflammation is the output of urates by the kidneys. Mammalian kidneys have the soluble urea as their form of nitrogenized waste, while urates belong to animals with a three-chambered heart and a solid urine. When, then, the mammalian liver forms this primitive urine the kidneys become injured by casting it out. Long ago Dr. George Johnson, F.R.S., the respected professor of the Practice of Physic at Kin 's College, and a recognized authority on Kidney disease, wrote: "*Renal degeneration is a consequence of the long-continued elimination of the products of faulty digestion through the kidneys.*"

Recognizing, as we do, that under certain circumstances (often mental strain) the liver falls back upon this primitive urinary stuff, it is obvious that the rational plan of meeting the difficulty is to reduce the albuminoid elements of our food to the needs of the organism rather than the cravings of the palate. That bite of solid meat so acceptable to the Anglo-Saxon has led him to cultivate flocks and herds to a point of excellence

unattained by other races. The beef and mutton in other countries will not furnish solid joints; has to be hashed and stewed and made into ragouts in order to be palatable. Even a leg of mutton stuffed with onions is but indifferently good. A "Wiener Schnitzel" is a veal cutlet, and the continental equivalent of our steak and chop—not forgetting *Fillet de Bœuf*. The "plain roast and boiled," the pride of the Anglo-Saxon housewife and cook, are largely responsible for the prevalence of this form of Bright's disease amidst Anglo-Saxon people.

This statement is not rashly hazarded as a specious and ready generalization. It is the outcome of careful thought on the matter.

In England at least the impression exists that simple fare—"plain roast and boiled," is innocuous. It is a murderous fallacy! It is just the abundance of meat—sapid, palatable, readily prepared, stimulating—that is the bane of so many men. It would not be too sweeping a generalization to say that the lady who dines at home is comparatively free from Bright's disease; while the business man who takes his midday meal at a restaurant, and then dines at home in the evening, is the victim of Bright's disease *par excellence*. As he looks down the ménu for his lunch, his eye lights upon dish after dish, in the composition of which lean meat forms the integral factor.

This fact cannot be impressed too distinctly on the mind. To traverse the statement by pointing to the fact that many men notoriously consume large and unusual quantities of such animal food, with apparent impunity, is merely to state that the human liver is in many instances equal to converting into urea the whole surplusage, or *luxus consumption* of albuminoid matter. It leaves unaffected the fact that when the liver is unequal to such complete conversion, and reverts to the formation of urates, it becomes a wise and prudent measure to reduce the albuminoid elements in the dietary to the wants of the body.

There is a strong impression abroad among medical men, who have paid great attention to the subject, that the lean of the larger animals has a stronger tendency in the metabolism of albuminods to form urates than any other forms of albuminoids. This impression must just be taken for what it is worth. It is sufficiently a matter of faith with the writer to inspire conduct, as his butcher realizes to his cost; while the fishmonger and the greengrocer benefit by it.

The *entrées* and made dishes of French cookery are far less pernicious than "the roast beef of old England," and its congeners. They consist to some extent of lean meat, true; but they also contain notable quantities of oil and vegetables.

The man who is held to be the subject of chronic Bright's disease should banish the solid joint from his table; except maybe on Christmas Day. The steak and chop should be indulged in rarely, and when eaten not be devoid of fat. The veal, or rabbit, or beefsteak pie should not be without a due proportion of fat.

The same may be said of the meat pudding, the hash, or the Irish stew, and the currey. He should have one vegetable course at dinner, and, what is more, ought religiously to partake of it.

White meats, as chicken, are less objectionable than brown meats; but, after all, it is but a matter of comparison. One patient obeyed his instructions but grossly violated them in the spirit. He was a blue-blooded Patrician, inheriting an insufficient liver—illustrating the truth of the adage, "the fathers have eaten sour grapes and the children's teeth are set on edge"—whose urine was laden with lithates. Meat being forbidden but fowls permitted, he explained that he "had passed the joint but laid into the turkey," as a gastronomic rule. A sharp attack of articular gout opened his eyes for him.

Of what then should the man with chronic Bright's disease consist?

Breakfast: Oatmeal or hominy porridge, hominy fritters, followed by a little fish with plenty of butter to it; or a slice of fat bacon or pork. Fat, fish and farinaceous matters. Hominy and fat pork for the less affluent.

Lunch or supper: Mashed potatoes well buttered. Other vegetables well buttered. A milk pudding made without an egg. Biscuits of various kinds and butter, with a nip of rich cheese.

Dinner: Soup containing plenty of vegetable matter, broken biscuit, or sago or vermicelli. Cream, in lieu of so much strong stock, should lurk in the soup tureen; especially in white soup. This should be followed by fish in some form; a course of vegetables, as stewed celery, chopped carrots, a boiled onion, leeks, nicely prepared potatoes, as "browned potatoes" à la Marion Harland, asparagus, or "scalloped tomatoes" and corn or "boiled corn." Then should follow apple-bread pudding, Maud's pudding, bread and raisin pudding; and, if the digestion can be trusted, roly-poly pudding, sweet pudding, and fruit pies. Stewed fruit with creeled rice, rice milk, or other milk pudding is good, or better still, cream. Then comes the biscuit, or crackers and butter. Dessert with its many fruits should never be omitted.

The reader who prefers something tasty and piquant will exclaim this is too much in the "baby-food," or the "nursery line," for him, and asks for some game, or some toasted cheese. Well! in strict moderation let it be—as the tasting of forbidden fruit.

Where something more sapid is fancied let it be anchovy toast, herrings skinned, cut into inch lengths and fried on toast, sardines on toast; pos sibly, a little caviare, herring roes and millets, or mushrooms. Certainly Pate de Foie Gras—all prejudices to the contrary notwithstanding.

There is a great deal of toothsome eating in a dietary suitable for a man of Bright's disease, all the same.

Eggs, ordinary cheese, and fish roes, are all highly albuminous, it must be remembered.

Fowls, chicken, game, are meats less objec-

tionable than joints; but again it is a matter of comparison.

From what has been stated above, it is clear that "hotel dietary" is as unsuitable for the person with Bright's disease as it is to the dyspeptic. Travel is not prudent for either. They had better keep to a private house with cookery adapted to their special wants.

Then as to drink. The interest in the matter centres round alcohol. Other than alcoholic beverages are beyond contention; except, perhaps, milk, which contains a notable proportion of albumen in the form of caseine. If it be taken as a beverage, or as a food adjunct, its composition must be borne in mind, and the other foods be sparing in albumen.

Probably light wines are practically innocuous, that is in moderate quantities; as is cider. Possibly the same may be said of the light lager beers, as Pilsener, but ales brewed on the English plan exercise a malign influence upon the liver. This applies to the porter and stout. Then as to spirits and waters, aerated or other! Opinions may differ. There is much less Bright's disease in Scotland, where oatmeal porridge and whiskey go together, than in England, with its beef and beer. The reader can draw the inference.

There is no valid proof that alcohol in moderation tends to add further to the morbid process, which, bit by bit, is slowly and insidiously working the ruin of the kidneys. On the other hand, beef-tea often does much mischief. The meat extractives it contains, though not food, are at the head of the descending series, ending in uric acid and urea, and add to the work of the kidneys.

One exquisite beverage, palatable and nutritive, is made with some malt extract and aerated water. Unfortunately, in order to prevent fermentation, a malt extract has to be reduced to the consistency of tracle. This viscidity renders it most troublesome to handle. The readiest plan is to get the cook every morning, or second morning, to dilute a certain amount of malt extract with an equal quantity of warm water, and beat it to a syrup. Fill a tumbler one-third full with the malt syrup, then fill with aerated water. This is a glorious malt liquor for a teetotaller—or any other man!—*Journal of Reconstructives.*

THE TREATMENT OF EPISTAXIS.

By Charles H. Wade, B. A., Oxon., L.R.C.P. Lond., M.R.C.S. Eng.

The embarrassment too often created by the persistence with which hæmorrhage from the nose continues in some cases, notwithstanding that resort is had to the extreme course of plugging the nares, renders any suggestion for effectually controlling this accident acceptable to practitioners. Its occurrence, moreover, not unfrequently takes place under circumstances that tend to increase the concern naturally aroused by loss of blood so alarming in extent as in many instances it is; very often the surgeon is hurriedly called in to arrest the flow without having been informed of the nature of the illness he is about to attend, and he is consequently unprovided with the special appliances deemed necessary for meeting such an emergency, and this, it may be, at a distance from home much too great to allow of any steps on his part towards procuring the means of easily making and placing in position the plugs with which, as a rule, he would seek to put an end to the bleeding. This question has recently been under discussion at the Paris Academy of Medicine, before which body M. Verneuil has described a method that he is disposed to regard as specific in even grave cases, and which consists in applying over the region of the liver a counter irritant in the form of a large blister; and he narrated three cases in which this plan of treatment effectually arrested the epistaxis, even after trial with digitalis, ergotine, and plugging had been made in vain. However successful the proceeding may be, it is impossible to regard it as less than a severe remedy, and if a simpler one should prove to be attended with equally good results, the choice, in ordinary cases, would most certainly lie with it. And that such is the case I am led to think from the good effects obtained by adopting a mode of treatment in these cases for a knowledge of which I am indebted to Mr. Jonathan Hutchinson, who has found it equal to the needs of all occasions on which he has employed it. It consists in immersing the feet and legs of the patient as far as possible, in water as hot as can be borne; and I can assert from experience that whoever will make a trial of the method will have cause to be thankful for so ready and available a remedy in trying emergencies.

A case in point occurred to me on the evening of Christmas Day, 1886, when, about 8 o'clock, I was hastily summoned to attend a laborer, æt. 40, who, according to the messenger, was "bleeding to death." I found him seated on a chair before a large fire, in the kitchen of his cottage, holding a duster, already saturated with blood, to his nose, and surrounded by sympathising relatives and friends; while hard by were evidences, in the shape of blood-stained rags, and a bowl of reddened water, to the effect that the hæmorrhage had been continuing for a considerable time. On inquiry I learned that it had lasted from about one o'clock in the day, and the sufferer himself volunteered the information that his condition might have been influenced by the fact that, in deference to the season, he had taken "his beer" in more liberal quantities than usual. On removing the cloth with which he sought to stay the flow, the blood dripped freely, and the same rate was said to have been maintained for several hours. The man's appearance quite justifiedt he truth of this assertion, and I determined at once to fall back on the hot pediluvium, having, from prior experience, complete faith in its efficacy. Fortunately a pan of water was on the fire at the time, almost

boiling, and half filling a couple of buckets with it, and adding enough cold water to render the bath tolerable, I placed a foot and leg of the patient in each. I must admit that my proceedings up to this point did not perceptibly impress my audience with a sense of my dignity as a surgeon, but almost immediately there after the drop, drop, from the nose of the patient was arrested, and within eight minutes it had entirely ceased. It need hardly be said that he had previously, at my request, been lifted in his chair, from out of the direct head of the fire to a cooler situation, and as he showted a tendency to faintness he was also for a time supported by bystanders who quickly became interested in the virtues of hot bathing as a specific for epistaxis.

Having directed the treatment to be continued for half an hour, and instructed the friends to put the patient then to bed, with the head lying low, I left the case quite easy in my mind regarding it, having first, however, told the wife, an intelligent woman, to repeat the bath should the bleeding return during the night. As a precautionary measure also, a mixture containing iron alum was given at intervals during the succeeding twenty-four hours, and after that the headache and weakness were speeedily recovered from with the aid of a tonic and good feeding. Once only, on the day following that of the attack, did the hæmorrhage recur, and it was at once and completely arrested by the same means.

I do not hesitate to describe this case at length because it illustrates a class of accidents more common perhaps in general practice than under any other circumstances; and also because they often give a good deal of trouble and cause much anxiety to those having the treatment of them. Since the time named I have more than once had occasion to adopt the same course of procedure, and in one instance being called late at night to a patient some miles away, and being unable to go to him at once, I gave the messenger careful instructions what to do; and the next day had the satisfaction of learning that all had gone well, though the hæmorrhage had lasted more than twelve hours.

It is not difficult to understand the *modus operandi* of the treatment, the success of which clearly depends on the abstraction of blood from the head owing to the greater demand for it in the lower extremities under the influence of the hot water. Moreover, it is probable that the force of the outflowing stream through the nostrils being once diminished, that coagulation is encouraged in the nasal vessels as a consequence of the loss already sustained, for the tendency, even in obstinate cases of epistaxis, is undoubtedly to the production of clot after a certain period in the process of bleeding. The frequent uselessness of hæmostatics during the flow also points to the same conclusion; for these agents act readily enough when once the loss of blood is arrested, they fail earlier because the effect of their local action is undone by the persistence of a current past the points affected, but which current is slowed or even stopped when a new demand for largely increased supplies of blood is set up in a more dependent part of the body.

It is impossible not to see in the plan of M. Verneuil a close relation to the one I have endeavored to describe, though the latter has many elements of advantage to recommend a preference for it, at any rate, at first. Whatever opinion may be held as to its mode of action, however, there can be no question of its extreme value as a mode of controlling epistaxis. It is sufficiently simple to be tried in all cases; it will rarely or never fail.—*Medical Press.*

THE TREATMENT OF DIABETES.

A paper was recently read before the Académie des Sciences, at Paris, by M. Villemin, on a case of acute diabetes which had been treated by means of opium and belladonna combined. The patient was a young soldier, strongly built and hitherto of good health, who had suddenly developed intense diabetes, passing twenty-five pints of urine daily with near two pounds of sugar. Two grains of extract of belladonna with one grain of extract of opium were then given, the patient at the same time being restricted to the usual *régime* for diabetic patients. In the course of a fortnight the quantity of urine was not much above normal, and the sugar had disappeared. Discontinuance of the treatment, even though the same diet was adhered to, was promptly followed by a return of the symptoms, which, however, as promptly subsided when the treatment was resumed. Later on he was allowed to return to the ordinary full diet for non-diabetic patients, but even then, so long as the opium and belladonna treatment (raised to 3 grains daily of each) was continued, no return of the polyuria or glycosuria occurred. Under treatment the patient gained 18 pounds in weight. Without being over-saguine, it would be interesting to see the result of this treatment in other hands.—*Dub. Medical Press.*

ŒDEMA OF THE PREPUCE.

Dr. J. G. Tapper writes to the *New York Medical Journal* for November 6, 1886, that for several years past he has been treating very successfully the great œdema and infiltration, attending many cases of phimosis and paraphimosis as the result of congenital or specific causes. In many cases occurring in the adult we find a perfect horror of being confined to the bed. In fact, unpleasant circumstances connected with the trouble render it imperative that our patient should engage in his usual occupation during the treatment. These requirements have led him to the adoption of the following measures: He saturates a given quantity of absorbent cotton with chemically pure glycerin

in which bichloride of mercury has been dissolved in proportions varying from 1 in 1000 to 1 in 5000, according to the amount of fœtor present; or, in place of the bichloride, iodoform, carbolic acid, or any antiseptic agent preferred may be used. With the cotton so charged he completely encircles the organ so far as it is involved. Over this a large rubber condom is drawn, which is then suspended from an abdominal band. This dressing is to be repeated every six hours until the œdematous condition disappears. At that time a beginning pallor will be observed, and often in from twelve to twenty hours the prepuce will have become very pale and shrivelled. The great majority of cases yield promptly, and no further progress is observed after the first application. If ulcers are present, it will often be discovered that they have taken on a healthy action before it has been possible to expose them, and not infrequently this progresses until the cure is completed. The advantages of this dressing are: it is cleanly; there is no difficulty in applying it, patients frequently continuing the treatment at their rooms or places of business after the first dressing; it does not expose or confine the patient; and the results in his hands, and in those of others who have tried it at his suggestion, have been very satisfactory.—*Therapeutic Gazette.*

ERGOT IN ERYSIPELAS.

One of the most unsatisfactory processes to deal with on account of the want of success attending our efforts, is that of rapidly spreading erysipelatous inflammation. It is often found to be the case, that a focal point existed early in the disease, from whence the redness and accompanying tenderness spread rapidly, until large areas of skin were involved, and danger to life was imminent. In these, as well as others presenting features less marked, in which the tendency to spread is less pronounced, many local remedies have been applied, with varying success, and almost uniform reports as to their efficacy. This last is perhaps due to the fact that most of the cases of erysipelas are favorably influenced by iron, given internally, generally in the form of the muriated tincture, and which treatment is nearly invariably pursued. A local application which is never mentioned in text-books or papers, at least it has escaped our notice if it is, but which has proved to be of the greatest practical value in one of the large institutions of this city, is the Fluid Extract of Ergot. This remedy, which answers all theoretical as well as practical purposes, has been found to far surpass all other local remedies in the treatment of this affection in this institution, at which we had an opportunity of seeing it constantly used for a year, in a ward, set apart for those cases, which was never vacant. It is painted on with a brush quite thickly, and rapidly dries, protecting the skin from the air, and besides, answering the theoretical purpose of contracting the gorged capillaries. Success with this procedure was so pronounced and uniform, that nothing was ever used in its place, the case being treated with the full confidence in its powers to allay the pathological process gained by repeated success.—*St. Louis Medical Review.*

A good motto, "In certis unitas, in dubitas libertas, in omnibus charitas," in that which is proven let us have unity, in doubtful things let us have liberty, in all things let us have charity.

TO STOP TOOTHACHE.

Gesell-Fels makes the following mixture, which is an oily liquid, and introduced in the tooth cavity has proved very effective:

Camphor, gr. lxxv;
Chloral hydrati, gr. lxxv;
Cocaini muriat., gr. xv.

PRESCRIPTION FOR HEADACHE.

The following is from Dujardin-Beaumetz:

Ethoxycafeine, gr. xii;
Sodii salicylat, gr. xv;
Aquæ destill., ad ℥ i.

Dose.—Teaspoonful or tablespoonful.

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ANNUAL MEETING OF THE COLLEGE OF PHYSICIANS AND SURGEONS OF ONTARIO.

The annual meeting of the Council of the above body was held in the Examination Hall of the Ontario College of Pharmacy, in this city, on June 14th and following days. Dr. H. H. Wright in the chair. The election resulted in the appointment of Dr. Henderson to the presidency, with Dr. Burns, vice-president. The offices of registrar and treasurer were continued to Drs. Pyne and Aikins.

CANADA MEDICAL ASSOCIATION.

This Association holds its annual meeting at Hamilton on the last day of August and the 1st of September. We trust the attendance will be large. We are glad to know that notwithstanding the attractions of the International Medical Congress at Washington a few days later, Montreal will be fully and ably represented. We predict a successful and a useful session.

INTERNATIONAL MEDICAL CONGRESS.

On the 5th of September, this assembly long looked forward to, with various feelings, by the different sections of the Medical profession in the United States, will open at Washington. Notwithstanding the bitter feelings, which have been the outcome of the division which took place among its promoters, in its early history, the attendance promises to be large, and influential—though not so much so as unanimity would have secured. Prominent men from abroad, and from the United States, whose presence was most desirable, will be absent; yet, others, possibly as earnest workers, have intimated their intention of taking part. Montreal will also be well represented at this Congress—although even here, the division, so to speak, compels, as a matter of propriety, the absence of some. Reduced rates are offered by the various railways.

THE ENGLISH COMMISSION ON PASTEUR'S METHOD OF PREVENTING OR TREATING HYDROPHOBIA.

The British Parliamentary Commission, which has been engaged in the study of Pasteur's work for several years, has finally presented a report, which expresses confidence in the truth of Pasteur's claims with regard (1) to the presence of hydrophobia virus in the spinal cord of animals dying with the disease, (2) to its transmissibility to other animals by inoculation, (3) to the fact that animals can thus be rendered refractory to subsequent inoculations, or even the bites of rabid animals. Finally, it is highly probable, even after such bites have been inflicted upon unprotected subjects, that subsequent inoculation as practised by Pasteur is of service in preventing the development of the disease.

The committee observe, "Making a fair allowance for uncertainties and other questions which cannot now be settled, we believe it sure that, excluding deaths after bites by rabid wolves, the proportion of deaths in the two thousand six hundred and eighty-two persons bitten by other animals was between 1 and 1.2 per cent., a proportion far lower than the lowest ever estimated among those not submitted to M. Pasteur's treatment, showing, even at this lowest estimate, a saving of not less than one hundred lives."

The value of M. Pasteur's method is further confirmed by the results obtained in certain groups of his cases. Of two hundred and thirty-three persons bitten by animals in which rabies was proved, either by inoculation from their spinal cords or by the occurrence of rabies in other animals or persons bitten by them, only four died. Without inoculation it is more than probable that at least forty would have died. Further illustration of this successful result is shown among other additional groups of cases. Between the end of last December and the end of March, M. Pasteur inoculated five hundred and nine persons bitten by animals proved to be rabid, either by inoculation from their spinal cords or by the death of some of those bitten by them, or as reported on by veterinary surgeons. Of this number only two have died. One of these was bitten by a wolf a month before inoculation, and died after only three days' treatment. If we omit say one-half of these cases as being too recent, the other two hundred and fifty have had a mortality of less than one per cent., instead of twenty to thirty per cent.

"From the evidence of all these facts," the committee then say, "we think it certain that the inoculations practised by Mr. Pasteur on persons bitten by rabid animals have prevented the occurrence of hydrophobia in the large proportion of those who, if they had not been so inoculated, would have died of that disease; and we believe that the value of his discovery will be found much greater than can be estimated by its present utility, for it shows a method of inoculation by which it may be possible to avert after infection other diseases besides hydrophobia. His researches have also added very largely to the knowledge of this disease, and have supplied what is of the highest practical value,—namely, a sure means of determining whether an animal that has died under a suspicion of rabies was affected really with the disease or not."

BEECHER'S VOICE IN THE PHONOGRAPH.

The *Philadelphia Medical and Surgical Reporter* says: In the house of Thomas A. Edison, at Llewellyn Park, is a remarkable memento of Beecher. The inventor's phonograph for impressing on a soft metal sheet the utterances of the human voice, and then emitting it again by the turning of a crank, has never been put to any very valuable use, and Edison has only gathered from it a few thousand dollars in royalties from exhibitors. But he utilized it to make a collection of famous voices. Since he became famous his visitors have included hundreds of celebrities. Instead of asking them for their autographs or photographs, he has in two or three hundred instances requested them to speak a few sentences into a phonograph. He has kept the plates in a cabinet, and occasionally he runs some of them through the machine, which sends out the words exactly as uttered. Edison is probably the only man who can revive the silenced voice of the great preacher.

PERSONAL.

Dr. Roddick, Professor of Clinical Surgery in McGill University, is about to visit Europe for the benefit of his health.

Dr. George Ross, Professor of Clinical Medicine in McGill University, whose illness we mentioned some two months ago, is now at Rye Beach. His numerous friends will be pleased to know that he continues steadily to improve, and that there is every probability that by September he will be so completely recovered, as to justify him in resuming active work.

Dr. Sterling (M.D.), Edinburgh, has settled in Montreal as an Oculist.

Dr. Apostoli, the celebrated French Gynecologist, is, we learn, to pay Montreal a visit while *en route* to the International Congress at Washington. Dr. A. Lapthorn Smith, of the Faculty of Medicine of Bishops' College, has been engaged by Dr. Apostoli to translate his forthcoming work into the English language.

Dr. Laberge, the Montreal Health officer, is undergoing a kind of periodical castigation at the present time. His treatment is rather harsh, and while, perhaps, not faultless, he has not been the listless idler his opponents would like to make him out.

REVIEW.

A Practical Treatise on Obstetrics. In four volumes. Vol. I, Anatomy of the Internal and External Genitals, Physiological Phenomena (Menstruation and Fecundation). Vol. II, The Pathology of Pregnancy. Vol. III, The Pathology of Labor. Vol. IV, Obstetric Operations, The Pathology of the Puerperium. By A. Charpentier, M.D., Paris. Illustrated with lithographic plates and wood engravings. These are Vols. I, II, III and IV of the "Cyclopedia of Obstetrics and Gynecology" (12 volumes), issued monthly during 1887. New York: Wm. Wood & Co. Price of the set $16.50.

We congratulate the editor and publishers on the selection of Charpentier's work to represent the obstetric portion of their Cyclopedia. The editor, Dr. E. H. Grandin, has assuredly done his work well, and, in giving the book an English dress, has very properly placed in brackets the views held by the profession here, where they differed materially from the French text. An example of this may be found in the chapter containing a description of the third stage of labor. Dr. Charpentier advises traction on the cord, giving minute details as to the direction, etc, Dr. Grandin adds a description of Crede's method, and very properly adds that it is the accepted practice in this country. In another part of the work, however, we think the text could have been improved upon by making the positions of the child in delivery correspond to that usually given by English and American authors.

There is nothing more confusing to the student of medicine than to find that every obstetrical work he picks up gives different names to the different positions. When there is no special advantage to be derived from any special nomenclature, we certainly ought to try to confine ourselves to one for the sake of simplicity.

Volume four completes Charpentier's great work, and gives us the most interesting part of all. The variety of forceps described is very large, from the original one of the Chamberlen's to the latest modification of Tarnier's. All the obstetric operations are minutely described and profusely illustrated, but the wood-cuts are not as distinct as they might have been; this, no doubt, being due to the small cost of the work, so as to bring the price within the reach of all practitioners. Puerperal fever is regarded as merely puerperal septicæmia, and the author is an extreme advocate of antiseptic obstetrics. including the post partum vaginal injections in all cases. The rest of the book is admirable, especially the chapters on dystocia. The work is one intended more for the use of practitioners than for students.

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Original Communications.

AN UNUSUAL CASE OF EPILEPSY.

BY CASEY A WOOD C.M., M.S., Professor of Pathology, University of Bishop's College.

[Read before the Montreal Medico-Chirurgical Society.]

Some years ago Dr. Wm. Osler read a paper in this room in which he spoke of a case of Jacksonian Epilepsy. He was fortunate enough to be able to show the brain of the subject and the cortical growth (a small glioma) which gave rise to the epileptiform seizures. I am unable to demonstrate the actual existence of any disease within or about the motor zone of the patient about which I am going to speak, because he is still alive, but I thought it might be interesting to introduce for discussion here, by detailing such a case, the whole subject of false (now-hysterical) epilepsy. The subject of epileptic aurea and the modes of onset in epilepsy has always been an attractive one to me, and I would like to hear from members of this society in this connection.

Until 18 months ago, E. B., aged 70, was in fair health. Had never had syphilis but now suffers and has suffered at times for many years from rheumatic gout, the great toe of right foot being the chief seat of the trouble. Has occasionally had pains which were set down as rheumatism in several other joints of his body; but has never been laid up with them. Has never suffered from persistant headache; never had any injury to his head, and his intellectnal faculties are well preserved. There is no history of family neuroses. His digestion is fair and his heart and kidneys are in normal condition. He had his first attack 18 months ago, and the half dozen attacks which he has had since then are similar to that one, only they seem to be getting worse. He first noticed twitching of the muscles of the left forearm and face. These twitchings increased its violence,and although he made efforts to control them they went on getting worse. He then began to experience feelings of fear as of impending danger, and in about a quarter of an hour after the first muscular contraction he thinks he became unconscious for a few moments, but is not certain of it. In half an hour the whole attack was over, and with the exeeption of a feeling of weakness in the arm he was all right again.

He has had since then, but at no regular interval, some half dozen attacks, varying little in character from the first one. Nearly every attack has been witnessed by his fellow workmen or his wife, and I have been able to get a pretty fair account of them. The loss of consciousness lasts but a few moments.

Sometimes he has had what he calls double attacks. That is, he will have a second attack a few minutes after the first, which is not as severe as the first and is not accompanied by unconsciousness. He knows when he is going to have an attack, and will grasp his left wrist in his right hand and do his best to prevent the spasm from getting worse or from attacking his face. I saw the latter half of one of these attacks which he declares he can bring on at will, or rather (because the man suffers much from the dread of approaching danger which accompanies the attack) he thinks that where he has a second attack it is due to putting the arm or his body in some uncomfortable position. I was talking to him one

day (having reached the house shortly after a seizure) when he said "There, I am going to have another attack." He grasped his left wrist firmly, but jerking began in the arm, the muscles of the upper arm being most affected. This was shortly followed by twitching in the other muscles of the arm, all growing worse, until the forearm became flexed upon the upper arm. Then the muscles of the face began to twitch and both sides seemed affected just as in true epilepsy. The man meantime made violent efforts to control the spasms, and called to his wife to prevent the flexion of the forearm. She succeeded in straightening it with some difficulty. In five minutes the attack was over and I am unable to say whether he was unconscious or not.

For several days afterwards he complained of weakness in the affected arm. The spasm in this instance and in every other attack was distinctly confined to the left arm and face, beginning first in the arm and extending to the facial muscles. Without the dynaomometer test, the grasp of the left hand several days after an attack appears to be as firm as that of the right. I do not know why it should be so, but the patellar tendon reflex is wanting in the left leg and is faint in the right side. The only doubt it appears to me, in the diagnosis of this case as one of Jacksonian epilepsy, or in other words of disease affecting the face and arm centres about the fissure of Rolando is that matter of loss of consciousness. It seems to me however that the tonic muscular contractions confined to such related groups of muscles as those of the arm and face, the gradual onset, the loss of consciousness if at all but very slight and coming on near the end of the attack, after the patient has been able to make vain but intelligent efforts to prevent the involvement of the other arm and facial muscles, the absence of any history of his falling down, all these point to a local brain lesion and not to true epilepsy. There was no paralysis in this case not any tonic contractions of the muscles, although the patient complains of weakness in the arm for a day or two after an attack. One must conclude that there is no actual destruction of the cortea within the motor area, but that some growth or induration in a situation outside of it irritates, upon occasions, the centres that preside over the face and arm muscles.

In Dr. Osler's case there was a long standing contraction of the right foot.

Regarding the treatment of this case he has been taking, for several months, 5 grs. of potassic iodide, 10 grs. of potassic bromide and 15 grs. of potassic bicarbonite, 3 times a day on alternate days, and so far he has been free from attacks. I am watching the case and awaiting developments. Thinking for obvious reasons, that it was advisable to have his eyes examined I sent him to Dr. Proudfoot, and I conclude with his report:

"I send you the following notes of E. B's. case. I am sorry he could not come to see me again as I wish to examine his color perception and visual powers which I could not do before.

"At the time I examined him I found the humors of the eye perfectly transparent and nothing abnormal, with the exception of the "disc" which was somewhat greyish in color, and there were two or three small collections of pigment at the upper and outer margin; and a narrow atrophic ring extending round the lower and inner third, with a slight depression of the vessel in that region.

"There was no hyperoemia or other evidence of any very recent trouble, and the patient informed me that his sight was as good then as it had been for some time back."

A WORD OR TWO ON THE TREATMENT OF ACUTE PERITONITIS. WITH A COUPLE OF CASES IN ILLUSTRATION.

By A. D. Stevens, M.D., Dunham, Quebec.

It is not necessarily the rare and obscure in practice that possess the most interest to the class of men who read journals like your own. When a *point* can be emphasized—even a well known one—it is well to do so. With this end in view, I send a condensed account of treatment of a couple of cases of typical acute peritonitis.

G. W., aged about 40 years, of robust constitution, and carpenter by trade, fell ill on the 22nd of January last, from exposure to cold, while working upon the outside of a building. Two days later, symptoms of acute peritonitis developed. I gave him a few grains of hyd. c. cretâ and a saline cathartic, which emptied the bowels. The next day the increased tenderness of the abdomen, the tympanites, the elevated temperature and other well known indications more fully confirmed the diagnosis. From 20 to 30 drops of tinct. of opium (according as could be tolerated) were then ordered him every three hours, and turpentine stupes to be freely applied to the abdomen. Although the stomach was irritable, he managed to

keep down more or less iced milk and water. This, without interruption, constituted his treatment until the seventeenth day from the date of my attendance, and during the whole time, he had no movement of the bowels. On that day, the inflammation having to a certain extent subsided, I gave him an enema of lukewarm water, secured an evacuation of the intestinal tract, increased the quantity and quality of food, and again locked up the bowels with the tinct. opii for four days more. At the end of that time, the exceedingly tense, painful and tympanitic abdomen, having to a still larger extent given way, another enema was ordered,—but here my patient and I parted company, but not before I had left him a couple of ounces of laudanum to be used as he might require, and directions in general as to future management. It was midwinter, fearfully cold, and the home of the patient in a mountainous, snowy locality, and we did not meet again until he turned up at my place two months later, all right, with the exception of a swelled or oedematous leg, which I attributed to a phlebitis occurring subsequent to my leaving him.

In April last, O. S., aged thirteen years, of healthy parentage and himself likewise healthy, went, with several boys, to a neighboring sugar bush to get some warm sugar and enjoy themselves generally. After satisfying their appetites for new maple sugar, and to carry out the programme, they all took off their boots, and went home bare-footed through the snow. The next day the hero of my tale became sick, and luckily the parents gave him a cathartic—on the day following I had no trouble in diagnosing acute peritonitis. As the bowels had been previously well opened, I gave the little fellow a half dozen grains hyd. c. cretâ and fifteen drops tinct. opii, the latter to be given, more or less, according to the effect, every three hours. This (the laudanum), with turpentine stupes, was all the medication he received until the sixteenth day, when it was found that the inflammation had sufficiently given way to warrant an enema, which produced the first movement of the bowels he had had during the whole fifteen or sixteen days. The case went on well enough for a short time, when a sort of relapse set in, accompanied by typhoid or adynamic symptoms. These, however, after many "ups and downs" yielded to quinine, opium, brandy, milk and the like. To-day he is as well as any boy in this Township. It will be observed, by the foregoing, that I kept the first patient's bowels continuously quiet and locked up for seventeen days, and the last one for fifteen days. In my judgment, if, at any time during these anxious days, I had yielded to the urgent solicitations of friends and given even the mildest enema there would have been just two persons less now living in this community, and that is really all the point I wish to draw attention to.

If called early enough, empty the prima via. with a mercurial laxative, and then shut down *closely* and persistently with tinct. opii (not morphia) until the inflammation subsides. If the patient is not seen soon enough, don't give even the mildest laxative at first, but close up at once and *keep* unflinchingly closed up until that time arrives, no matter how long the subsidence may be in coming. The important fact intended to be made prominent herein may or not be an old story, but, according to my observations, the oftener it is repeated the better for all concerned. The patients will certainly not all die of this dangerous inflammation, if the extensive and roughened peritoneal surfaces are *not* disturbed by cathartics, or other means, from the very time the inflammation sets in, to the time of yielding.

Correspondence.

WINNIPEG, MAN., Aug. 15th, 1887.

To the Editor of the CANADA MEDICAL RECORD.

DEAR SIR,—In your July number, page 238, I observe an article from the St. Louis Medical Review, on "Fluid Extract of Ergot" as a local application in "*Spreading Erysipelas.*"

A few days ago I had a case in the Fort under my charge, which was Erysipelas of the foot and rapidly extending up the leg. I used Fluid "Extract of Ergot," painting the foot and leg thoroughly and administered Tinct Ferri. M x x ter die internally. In twenty-four hours after the application I was considerably surprised to find my patient's foot free from pain, swelling and arrest of the extending inflammation. He expressed great relief and desired to return to duty, this I declined to allow him. I repeated the application of Ergot four times, covering the leg with cotton wool. On the fourth day from the outset of the inflammation he returned to duty cured. It would be interesting to hear from others more of the results of this treatment in Erysipelas.

Yours, etc., ALFRED CODD, M.D., C.M.
Surgeon, R. S. M. Infantry, Winnipeg.

Progress of Science.

CONSTIPATION,

By J. Milner Fothergill, M. D., Edinburgh,
Physician to the City of London Hospital for Diseases of the Chest (Victoria Park).

In the constant round of daily practice the physician commonly encounters cases where the bowels are not properly open. Both sexes and all ages are liable to this undesirable condition. Frequently the constipation is very obstinate, and refuses to yield to the measures employed; or, in other cases, is only kept at bay by the constant resort to laxatives or even cathartics.

The bowel is not only the recipient of the waste and undigestible matters of our food, but has its own glands, which are not all absorbent. Whether the offensive odor of the fæces is due to mere fermentive or putrefactive change in the contents of the lower bowel, or the glands situated thereon lend some of the fœtor, it may not be easy to perfectly determine; but any one familiar with obstetrics knows how, when the fœtal head is distending the perineum, the glands situated near the anus can be distinctly felt like so many small shot, and their secretion is as offensive as it is difficult to remove from the hands. The excreta possess an offensive odor which secures their disposal, and thus one good sanitary end is served by the unsavory secretions of these glands. These glands serve to lubricate the mucous lining of the intestine and thus expedite the passage over it of the contents of the bowel.

Any loss of activity in the muscular movements of the intestine will favor the tendency to a constipated condition. This is met with at all stages of life, but perhaps it is most markedly seen in the case of young females. A natural delicacy impels them to avoid the proximity of the closet, and gradually the bowels are taught to carry a greater and accumulating load. The pouches of the bowel become distended, and the fæces which pass them are alone voided, and are of more or less fluid consistency; so that a girl may believe her bowels open, or even think herself the subject of looseness of the bowels, when in reality her abdomen is filled with fæces. One ontoward result of such chronic constipation in young girls is displacement downwards of the ovaries, and these organs may become glued down to their new habitant by adhesive inflammation. Two unfortunate outcomes of this displacement of the ovaries are (1) sterility, and (2) irritable ovary. The most marked case of this kind which ever came under my notice was that of an American lady. For the sterility of course nothing could be done, the ova being hopelessly beyond the reach of the fertilizing zoösperms. For the irritable tender ovaries something could be done, but the effects of treatment were so little satisfactory that the removal of the offending and useless organs was discussed.

Such a condition of chronic overloading of the bowels is furthered by the lack of bodily exercise during school-life. The school-girl is busy with her lessons and absorbed in her work; she scarcely gives a thought to her bowels, and perhaps is rather glad that they do not force themselves upon her attention. The resultant consequences are that the large bowel becomes distended, while the muscular fibres become attenuated, and the bowel becomes incapable of properly unloading itself when the opportunity is offered. The uterus is forced down upon the floor of the pelvis, and, as we have seen, the ovaries may be displaced. Until physiological aspirations arouse the idea of matrimony, and a marriageable age is reached, little attention is given to the physical state; and then a confirmed condition is discovered and one requiring considerable attention and trouble for its removal.

In selecting remedial agents, the choice must be guided by the precise requirements of the morbid condition. To restore the muscular activity is as important as to excite the secretion of the intestinal glands. The ordinary catharsis does both, and so sweeps the contents of the bowels out by the anus. But every physician of experience knows well that the recurrent resort to active purgation gives about as unsatisfactory results as well could be attained. In the first place women of all ages bear active purgation very badly. The griping pains are ill borne and depress very acutely. When the bowels are cleared out by a violent action the process of loading up again sets in immediately, and another catharsis is soon required with all its attendant discomfort. In this respect women are closely approximated by men of feminine type. Active purgation is only well tolerated by robust persons. In others it should only be adopted when there is some distinct end to be served by it.

An occasional clearance of the bowels may be desirable; but the treatment should consist of a small amount of laxative materials, taken with perfect regularity, persistently and steadily. Two classes of laxative agents present themselves for notice: these are vegetable substances and mineral substances. Frequently they can be combined with advantage. For women the vegatable laxatives are best. As compared to men they do not bear well mineral purgatives, whether as natural waters or artificial solutions. Fortunately vegetable extracts readily lend themselves to pill form. The first laxative to come into general use was rhubarb. But unfortunately rhubarb has a secondary binding tendency following the primary purgative action. Thus, it is unsuitable for habitual use, though this action gives it a peculiar value when the bowels are to be unloaded previous to an operation on any of the contents of the pelvis. (In cases of diarrhœa set up by a railway journey such use of rhubarb is most excellent.) The persons who adopt rhubarb for the relief of habitual constipation are not likely ever to be cured.

It has fallen to my lot to see such a case quickly relieved by substituting for the rhubarb some other laxative. Next in frequency of resort is aloes. Aloes acting upon the lower portion of the bowels is in great vogue in constipation linked with amenorrhœa (partial or complete). In consequence of this localized action aloes in full doses are not exhibited in pregnancy, except from ignorance or criminal intent. Fordyce Barker sees a certain utility in this localized action, and has from experience found that the stimulent action of aloes upon the area supplied by the hemorrhoidal arteries is good in the piles of pregnancy. Certainly the use of aloes in small doses, in combination with other laxatives, is rational practice. A certain amount of aloes should form a factor in the remedial agents employed in all forms of constipation in women, whether pregnant or not.

Then, beyond these two familiar laxatives, a host of others, which are more or less in use. Colocynth, gamboge, jalap, scammony, cascara sagrada, are perhaps those most in vogue. Castor-oil is rarely resorted to for constant use; while croton-oil might be more prescribed than is at present the case with advantage.

One matter, especially with female patients, must never be forgotten, and that is to diminish as far as possible the griping pains which activity in the muscular fibre of the intestine sets up. When the vermicular action is roused, violent contraction produces a griping pain very commonly; yet the muscular activity is essential to cure. To prevent this griping it is usual to add carminatives to the laxatives; black pepper, cayenne, and the essential oils all possess the property of taking away to a great extent these painful contractions, and so can be incorporated in the pill with advantage. One point must be borne in mind about the griping pains produced by the exhibition of laxative medicines, and it is this: griping may be due to violent contractions of the muscular fibre, which, however, may be ineffectual; and then the remedy is to increase the dose, when effectual efforts bring with them the desired relief. When the patient complains of griping pains it becomes necessary to ascertain whether the bowels are freely open or not; if not, a larger dose must be given. But if the bowels are freely open then the dose may probably be reduced with advantage.

In order to secure more energetic action in the muscular fibre of the intestine, it has become usual to add a little strychnia to the habitual laxative; and a very good practice it is. The steady use of such a compound pill will be found in time to put the bowels in a more desirable condition. But—in my experience at least—persons who suffer with habitual constipation lack perseverance. They either contrive to forget their medicine, or they give it up as soon as they are partially relieved, and do not continue it (in lessened doses) until the new order of things is firmly established. And if the palate is offended by the medicine, abandonment of it prematurely is almost certain to happen. Consequently humanity has declared for pills as the form of remedy *par excellence* in constipation.

A good combination would be provided by something of this kind for habitual use:

Strychniæ	gr. i.
Pulv. aloes	ʒ i
Pulv. piper, nig. . . .	ʒ i.
Ext. cascara sagrag. . .	℈i. j.

In pil. xxiv div. i bis. in die.

When the bowels have become more regular, then instead of a pill night and morning, one at bedtime alone would be sufficient; and after a time the pill might be given up entirely, having fulfilled its purpose. If something more potent is required, then half a drachm of croton-oil may be added to the pill mass.

Some practitioners are fond of giving hyoscyamus to relieve griping.

Where the condition is not very pronounced a laxative pill at bed time once or twice a week is sufficient. Where the patient is of a rheumatic nature, or there are deposits in the urine, it is well to add a mercurial to the laxative. Something of this kind would be found serviceable:

Calomel	℈i
Ext. hyoscyami . . .	℈iss
Pil. coloc. co. . . .	℈i

In pil. xii div. i p. r. n.

When such a pill is found not quite potent enough, it may be well to assist its action by a draught of cold water on getting out of bed next morning—often itself very efficacious. Or some form of purgative water may be preferred, or a seidlitz powder, or some effervescing preparation, of which the name is legion.

If one line of attack fails, then try another. Some victims to constipation try a variety of compounds before they find what they desire. In one case it is a proprietary medicine, in another an orthodox prescription. One old lady who for half a century had been in search of a remedy paid me the compliment of asking me what I could suggest. It was in my early days, and the range of my knowledge was limited, but I hazarded the suggestion that a draught of cold water on rising often proved a very good remedy. She adopted the suggestion with the most satisfactory results, and prophesied a career of usefulness for me.

When something is taken in the morning it is uncomfortable, and for business men in cities well nigh impossible to have the bowels acting during the day. To secure prompt action it is well to take the dose of purgative water (or its equivalent) with hot water, or tea or other warm vehicle. This will usually produce the desired effect; and, if taken on getting out of bed, secures the desired operation by the time breakfast is over. When a pill has been taken previously at bed time the bowels are usually ready to operate soon after the morning draught is taken; and then a motion before breakfast, followed by a second when that meal is over, fits the bilious business man for his day's work. Where a person is depressed and liverish, to sweep

all spare bile and all offensive matters out of the intestine is to give a mental cheerfulness which contrasts with the gloom which reigned before.

Where children are subject to constipation something palatable is required. Children, even more than adults, resent what has an objectionable taste. Castor-oil is detested in the nursery, and not without reason. Tincture of senna in a little tea is preferable. But of all forms of laxative a sweet ginger biscuit or cracker, containing a few grains of jalap, is the least repugnant to the childish palate. It should not be too hot, else the ginger offends. If such toothsome sweetmeat be granted as a reward for good behavior, the ruse will usually be successful; but if a shadow of a suspicion be excited that medicine lurks in the sweetmeat, a new line of attack at once becomes necessary. In other cases a little oatmeal or maize porridge to breakfast is enough. At other times a little stewed fruit, as figs, French plums, or even ordinary garden fruit, is found efficacious.

With many adults some treacle on whole-meal bread relieves the conditions which renders life a burden. The mechanical irritation set up by the particles of bran excites the vermicular action or the intestine, and all is well. Brown bread eaters are common everywhere. When travelling, such persons are liable to the presence of their bane, because brown bread is not always to be had. It will be well for these individuals to lay in a stock of pills in a travelling medicine chest, the now fashionable compound liquorice powder, or a bottle of some granular effervescent preparation.

When constipation is—as it very commonly is linked with inadequate action of the liver, the pure laxative should be linked with a hepatic stimulent. In the second edition of my *Practitioner's handbook of Treatment*, many of the prescriptions were altered, and the sulphate of soda substituted for sulphate of magnesia; the latter being a pure laxative, while the former possesses also a distinct action upon the liver. A certain very august porsonage is said to repose unlimited confidence in sulphate of soda, and certainly time has fully justified that confidence and demonstrated that it has not been misplaced. Others again find that phosphate of soda, familiarly known as "tasteless aperient salts," meets their requirements. Carlsbad salts also are in vogue.

The administration of an habitual laxative and the decision as to what agent or combination of agents, and what doses shall be employed, is one of the trials of prescribing. If the dose agrees at first in a week or a month it is either too potent or it looses its effect, and then an alteration of the dose, or the employment of some other agent or combination of agents, becomes inperative. Some persons have to keep "ringing the changes" and going a certain round, once more reverting to some compound that had lost its effect in past times. When a laxative has to be combined with tonics (or any drugs which have to be taken for some time) it is often well to give two prescriptions, one more laxative then the other, and then let the patient arrange the doses as he or she requires. If this gives the patient a little trouble—well, the patient after all is the person who is benefited, and the trouble brings with it its own reward.—*Phil. Med. Register.*

SOME POINTS IN MINOR SURGERY AT THE PENNSYLVANIA HOSPITAL.

By Thomas S. K. Morton, M. D.,
Senior Resident Surgeon.

Shock is combated usually by warmth and stimulants. The former is applied by means of hot baths or water bags, generally the latter. The patient is surrounded by rubber bags filled with hot water. These we have had made for the purpose. They are round, from one and a half to two and a half feet long, from four to six inches in diameter, and have a filling-hole with a screw cap at one end, and a handle at the other. Atropia is freely used. Whiskey, ether, digitalis, aromatic spirits of ammonia, or, in desperate cases, aqua ammonia itself, are given. The injection of pure ammonia is, of course, always followed by local sloughing. Mustard, hot fomentations, large enemas, and drinks of warm fluids do good service. Previously warmed blankets are a great comfort as well as of benefit.

Ether is our standard anæsthetic, although the A.-C.-E. mixture is often employed; chloroform very seldom. A small amount of the latter is found useful to relax the muscular spasm which often remains in drunkards, even when ether is fully pushed. A few drops will often permanently stop it, when the ether can be continued. A.-C.-E. has given rise to no alarming symptoms in at least two hundred administrations from my hands, and I know of no untoward circumstance attending its use here. All general anæsthetics are administered from small, square-folded, very absorbent towels. Cone or apparatus are not used. The "rapid" and rectal methods have long since been abandoned as dangerous. The patent ink-bottle stopper is found convenient to pour ether from the bottle.

During the local anæsthetic action of cocaine, we have performed many minor amputations, circumcisions, and other small opeartions; but with us, at least, the field of the drug in this direction is becoming quite limited. Most eye operations, however, are performed under its influence.

Divided or torn muscles, tendons, and nerves, if their ends can be seen, are sutured with catgut. If not visible, they are freely cut for, and likewise sutured. Good function is the almost invariable result.

Subcutaneous operations, such as tenotomy, aspiration, and even exploration by needle, are performed with as much antiseptic precaution as if a large wound were made, for death has been known to occur from wound complication following each of

these procedures. Therefore, knowing that there is *some* risk, no matter how trivial, it becomes one's duty to avoid it.

In the amputation of fingers and toes below the metacarpo or tarso phalangeal joints, rubber umbrella rings are used as tourniquets. The flaps are closely stitched, and, if there be any bleeding when the ring is taken off, a deep lateral stitch back of the line incision on one or both sides will always effectually control it. We never put a ligature upon these arteries, finding the above method amply secure, and, so far as our last few hundred such amputations show, unattended with disadvantage.

In exarticulations at the metacarpo or tarsophalangeal joints, ligatures are applied if possible; but if the bleeding is obstinate, a deep stitch into the palm or sole can be made to control the appropriate vessel. These operations receive the usual house dressing and a palmar splint. They are, as a rule, not dressed from ten days to two weeks, when solid and complete union is expected and usually found.

Catgut sutures are passed through finger and toenails, without fear, if by so doing crushed or cut parts can better be brought into shape, and also in operations for ingrowing nails.

We have saved many fingers, ears, and noses, which came in hanging by mere shreds of tissue by promptly sewing them in place, and treating antiseptically. No opportunity has occurred by which to test the saving of those parts when entirely severed from the body.

Abrasions and brush burns are carefully cleansed and treated with either boracic acid ointment, or the standard house dressing.

The latter consists of: protective; Lister gauze, wrung out of 1 : 1000 $HgCl_2$ solution, and its skin surface thickly dusted with iodoform; a pad of dry 1 : 1000 cotton, and moist 1 : 1000 gauze bandages over all. We have found that Lister's boracic acid ointment makes up better if wax be substituted for the paraffine of his formula. Our receipt is: boracic acid and yellow wax, each 1 part, cosmoline 4 parts.

Ligatures are never applied except in the largest operative and accidental wounds.

Sutures run under or through the bleeding points effectually control them. No trouble is experienced in tying catgut sutures or ligatures, when the first tie of the knot is made as for a surgeon's knot. Catgut is invariably used for these purposes. In treating some hundreds of scalp wounds, no matter how extensive, I have never applied a ligature, always finding that carefully placed sutures will stop all hemorrhage.

Stitches are placed very close together in all wounds; this presupposes proper drainage if it is necessary. If so, it is secured by a few strands of finest catgut, placed along the bottom, and brought out at one end of the wound.

Small or superficial wounds as rarely require drainage as ligature. Scalp wounds are not drained unless extensive. If the edges are much contused or torn, they are excised. Quite small wounds of the scalp or elsewhere, and sometimes larger ones, are, after antiseptic closure, covered in with a minute pad of bichloride cotton, and plastered down with either pure collodion or combinations of it with such drugs as evaporated tincture of benzoine comp. fl. ʒ ij tr. benz. comp. to fl. ℥ ij, and make to fl. ℥ ij with collodion), iodoform (10 per cent.), salicylic acid, etc. Wounds too small for stitches are similarly treated. Large wounds, of course, receive the house dressing and possibly drainage.

Very tense hematomata are freely incised, the clot or fluid blood curetted out, any bleeding vessel stitched or tied if it can easily be found, and the whole sewn up with or without a drain, according to size, and dressed with some compression.

Slowly resolving hematomata, or those in which suppuration is present or incipient, are manipulated in exactly the same way.

Punctured wounds are laid open, curetted, washed with 1 : 1000 $HgCl_2$ solution, and closed as above. If the bottom cannot be reached, a small drain should be carried as deep as possible, and the best hoped for.

Gunshot wounds are treated in much the same manner. If it can readily be done, the ball is extracted through the wound or by counter-opening. The entrance and exit (if there be one) wounds are excised, the tract of the ball curetted, thoroughly, a small gut drain carried all the way through, and the external wounds treated as simple incised ones.

Compound fractures, if the skin wound is small, are freely cut into, washed with 1 : 1000, curetted accurately stitched, and, if extensive, drained with catgut.

Some of them are dressed more frequently than the actual wounds require in order that good position of the bones may be secured.

Wounds of joints are treated in precisely the same manner, save that, unless they are dirty, we are satisfied with thorough washing with 1 : 1000, and omit the curette. Cure in one dressing is here attempted and good function expected.

Poisoned wounds are also treated somewhat similarly, but the utmost care is taken to get to the bottom of the wound itself and into all ramifications and sinuses with the curette and strong antiseptic solution (1 : 500). If the wound is very bad and cellulitis present or threatening, continuous antiseptic irrigation (1 : 2000) is started as soon as the cleaning out is effected.

Large glass percolating jars, with glass stopcocks, or other regulating device, suspended over the part, give best satisfaction. Whilst thus employing irrigation any wounds should be well covered with protective, the whole part covered with lint, and the solution allowed to drip upon it.

Suppurating wounds might be classed as poison wounds, for the treatment is almost the same, namely: curette and antiseptic solution (1 : 1000

or 1 : 500), excision of wound edges and, usually, accurate approximation, with or without a drain, as circumstances indicate.

Punctured, gunshot, suppuration, poison, and compound bone and joint wounds, when thus dealt with, as a rule heal by primary intention and under but one dressing.

Felons, buboes, simple and suppurating cysts, inflamed bursæ, and large, small, and diffused eradicable abscesses are treated by exactly the same method and usually with like result.

Ineradicable abcesses, such as the psoas, are treated by this method as it can be made to go, and are then drained into an antiseptic dressing by means of a rubber drainage tube ; through which they are from time to time washed out with antiseptic solution. Care must be taken in so doing, however, whether it be these or other cavities, not to let any of the solution remain in. It should be displaced by a weaker solution or distilled water.

In cutting into abscesses, old hematomata, etc., a better result is secured by opening them from one side through sound tissue.

Simple cellulitis is treated like the complicated form as described above.

Burns, if small in area, or confineed to an extremity, are treated by the regular antiseptic dressing. All easily removed, dead skin, etc., is taken away; the parts washed with 1 : 1000 bichloride solution or iodoform sprinkled on(in part for its analgesic effect), then protective in narrow strips, and the dressing and cotton. Anæsthesia may be required to do this properly.

Extensive burns are covered in with boracic acid or oxide of zinc ointment, the surface of which is sprinkled with iodoform and, if there is much pain, smeared thinly with oleate of morphia. This dressing is covered in with cotton batting and a bandage or binder.

Just here it may be well to speak of sloughs, granulations, and skin-grafting, but what is said applies to all wounds as well as burns.

Under the antiseptic dressing sloughs are very slowly thrown off. It is our custom to excise them as soon as they become demarked. If properly done this causes scarcely any pain or bleeding and places the wound days, and,perhaps,weeks nearer closure. By picking up the edge of the slough with a pair of forceps,and cutting with knife or scissors through its readily apparent junction with healthy tissue, it is easily accomplished. By this same process I have successfully, and without pain or hemorrhage, amputated even fingers and toes which we had attempted to save.

All forms of exuberant granulations are usually shaved off with a sharp knife. The moist bichloride dressing, applied without the intervention of protec tive, is found to produce ample stimulation, if such is indicated.

If skin-grafting becomes necessary, a patch of thin skin is selected and made aseptic, as is also the granulating surface, if it is not so already. Almost microscopic pieces of the cleansed skin are then cut out by means of a purified needle and a pair of scissors, and planted among the granulations. Narrow strips of protective are applied, and upon this is placed either the "house-dressing," or simply a pad of dry 1 : 1000 cotton. Any bichloride solution remaining about he parts should be washed off with distilled water before the grafts are cut and set, and strong solutions should not be used while the islets of epithelium are forming.

Leg ulcers, when small, are stimulated, if necessary by scoring with a sharp knife, nitrate of silver stick, etc.; dusted with iodoform ; accurately fitted with a piece of protective, and a gauze dressing put on with a firm roller. If they are large, and have callous edges, these latter are trimmed off, the sore curetted, perhaps straps applied after the iodoform and protective, and then the same dressing. By this method they can always be kept perfectly sweet and clean ; the discharge is but slight, and the pain still less. If the ulcers are very irritable, and will not bear the gauze dressing, boracic acic ointment is substituted for it.

Those painful, non-ulcerative conditions of the legs so often met with behave excellently under one or the other of the above dressings.

In such regions where it is impossible to apply or retain a regular dressing, great pains are taken in the cleansing before and after an operation, and iodoform in conjunction with frequent corrosive sublimate irrigations is freely used afterwards. Especially are these applications valuable about the genito-urinary organs and rectum. In females, after most operations thereabouts, the vagina is washed with 1 : 1000, and then *filled* with iodoform. Beyond an occasional irrigation of the external parts, nothing more need be done until the stitches —if they have not been of catgut—are ready for removal.

Chancroids heal wonderfully if kept buried in iodoform ; sometimes they are previously brushed over with acid nitrate of mercury, etc. No treatment is directed to hard chancres unless complicated.

Body parasites are destroyed with 1 : 500 corrosive sublimate solution. No unpleasant effects have been known to follow even the freest use of the solution in this way. If the ear has been invaded, it is syringed with that solution, and then filled with oleate of morphia and a little wad of cotton put on top.—*Medical News.*

CATARRHAL PHTHISIS.

By Thos. J. Mays, M.D.

There are three forms of pulmonary phthisis : the catarrhal, the tubercular and the fibrous. Of all these forms the catarrhal is by far the most frequent, and plays a most prominent rôle in the history of the other two. It is important, both from a prognostic and therapeutic point of view, to distinguish between these several varieties ; hence, while catarrhal phthisis will principally and mainly engage our attention to-day, that much

of the tubercular and fibrous forms will enter into the discussion as is consistent with a complete understanding of the subject. A great deal of loose and indefinite material has been thrown around the subject of phthisis, which has very much interfered with a true conception of its relations, and, in order to avoid a similar difficulty, and to make an intelligent discrimination between the different varieties and their true etiology, we will, in the first place, devote a few thoughts to the elementary structure of the pulmonary organs. The parts of the respiratory organs which are principally affected in pulmonary phthisis are the alveoli or air cells. The walls of the air cells are composed of fibrous connective tissue, which is completely ramified by capillary blood vessels and lymphatics. On their external surface, or the surface which is in contact with the atmosphere, they are lined with a flat or pavement epithelium, and these are the elementary bodies which are principally involved in catarrhal phthisis. Between these epithelial cells there are stomata, or true orifices, which communicate freely with the lymphatic vessels in the alveolar wall, and it is through these openings that carbon particles and other foreign materials in a fine state of subdivision gain access into the lymphatic circulation, and produce the well-known discoloration of the lungs. The lymphatic vessels are distributed, in their course, around the blood vessels and the bronchi; those which wind around the blood vessels are called the peri-vascular, and those which wind around the bronchi are called the peri-bronchial lymphatics. These are the structures which play such a pronounced part in the production of true tuberculosis, and their importance must not be lost sight of. We have, then, presented for consideration, in this connection, the alveolar walls, covered on their outside with epithelium and ramified internally with blood vessels and lymphatics.

Now, catarrhal phthisis is generally an extension of chronic bronchitis into the alveoli, or is the product of acute catarrhal pneumonia. In either case it implies a catarrhal affection of the alveolar epithelium. The blood vessels become engorged, and the epithelial cells multiply and accumulate and clog up the alveoli with their products. The filling up of the alveoli with these catarrhal aggregates produces small bodies which partake of the shape of these cavities. In this way one alveolus fills up after another, until a whole group or cluster of them is involved, giving rise to roundish nodular bodies which are so frequently mistaken for true tubercles. They are not tubercles in the technical meaning of that term, but are merely *accumulated inflammatory or catarrhal products.* This train of pathological changes is due to a disturbance of the relationship existing between the production and expulsion of epithelial products, *i. e.*, the expectoration did not keep pace with the proliferation. If such a relationship were preserved, or could by any means be restored, it is evident that the disease would be at once called into a state of abeyance. But the continued accumulation of excretory products exerts a pressure on the capillaries in the walls of the alveoli and in the interlobular septa, and in due course of time these infiltrated spots, thus cut off from their source of nourishment, will give rise to changes of a different pathological character, which will be discussed after we have disposed of another question which has an important bearing on our subject.

It has already been stated that catarrhal phthisis is evolved from catarrhal pneumonia, and the question arises here, why only from catarrhal, and not from croupous, pneumonia? As well as the other question, when does catarrhal pneumonia become catarrhal phthisis? In regard to the first question, it can be answered that croupous pneumonia seldom, if ever, passes into catarrhal phthisis, because its etiology and pathology rest on an entirely different basis from that of catarrhal pneumonia, as the following comparison of their chief characteristics will show: In croupous pneumonia the blood pressure is suddenly elevated, the blood vessels become intensely turgid and injected, the heart-beats become vigorous and powerful, fibrin leucocytes and red corpuscles exude from the more porous arterial walls into the alveolar cavities, where the whole assumes a semi-solid infiltration, undergoes a retrograde, fatty metamorphosis, becomes resolved and expunged in a short time, after which the disease comes to an abrupt termination. Catarrhal pneumonia pursues a different course. The disease comes on gradually and does not pass through the well-defined stages which mark the course of the croupous form; the tone of the circulation is reduced, and the whole constitution is in rather an adynamic condition; there is, as a rule, no exudation of fibrin, but instead the alveoli becomes filled with cast-off epithelium, leucocytes and some red corpuscles. These products have a strong tendency to undergo cheesy degeneration, and owing to its undecided progress and course it is very apt to become chronic, *i. e.*, to leave a vestige of disturbance here and there throughout the lungs, which, upon the slightest provocation, is fanned into freshness again. Again, it is important to observe the respective portions of the respiratory organs which are attacked by the two diseases. It is but rare that pure croupous pneumonia attacks an apex, unless it involves a whole lung, but it always shows a preference for the basic portions of the lungs, and involves either a whole or two lobes. On the other hand, catarrhal pneumonia shows a disposition to attack small portions of lung, such as one or two lobuli, and if it shows a decided preference for any locality, it is the middle or upper portions of the lung. This is particularly true of its chronic form.

Whether the difference in the nature of the pathological products in the two diseases—the one being a fibrinous exudation, and the other a catarrhal secretion—has any influence in determin-

ing the particular seat of attack, or not, it is very probable that one reason why the lower lobes throw off the catarrhal products more easily than the apices is that the moisture contained in the catarrhal secretion of the apices gravitates to the base, leaving that in the latter dry and unyielding, while that of the base possesses greater fluidity, and is therefore more readily expectorated. Then, again, it is evident, if other things are equal, that catarrhal deposits are thrown off more easily in localities where the lungs are active than where they are quiet, and it is well known that the apices have less respiratory motion than any other portion of the lungs, hence this weakness also contributes to the danger of the retention of infiltrated products, which become nuclei for still futher accumulation. It thus appears why it is that croupous pneumonia, so seldom, if ever, terminates in phthisis, and, why, even in catarrhal pneumonia, the infiltrated products at the base are thrown out, and those in the apices are left behind, which makes the latter so vulnerable to phthisis in this disease.

I think, if what has been said is true, it follows that a catarrhal infiltration in an apex, in the vast majority of cases, if not in all of them, comes to stay, *i. e.*, it is a chronic affection, and tends towards disintegration and excavation from the very start. In other words, such a case is not one that belongs to the domain of catarrhal pneumonia, but is one of catarrhal phthisis from the very beginning. If, therefore, an infiltration, or even a prolonged expiration, occur in an apex without involving any other portion of the lung, we are undoubtedly justified in calling it a case of incipient pulmonary consumption, of the catarrhal form.

In taking up the thread of our argument, when digressing to discuss the comparative pathology of croupous and catarrhal pneumonia and their relations to catarrhal phthisis, it must be remembered that we had not traced the pathological process of catarrhal phthisis any futher than the stage of accumulation and pressure of catarrhal elements upon the alveolar walls and interlobular septa. The infiltration very seldom involves a whole lung, or a whole lobe of a lung, but is generally scattered throughout an apex, and affects isolated groups of alveoli, or of lobuli. Thus far the process is principally limited to the alveolar walls, their epithelium and their blood vessels, and the interlobular septa, but the continued accumulation of the catarrhal secretions will, through their pressure on the surrounding circulation, cut off their blood supply, and hence become circumscribed foreign masses, which undergo a slow process of cheesy degeneration, soften from the centre to the periphery, are expelled, and leave behind cavities, large or small, in proportion to the amount of tissue destruction.

It is during this stage of excavation that the true tubercle is generated. Probably, in virtue of a specific element derived from the decaying catarrhal masses, a new poison originates here, which is chiefly absorbed by the lymphatics in the surroundings of the affected parts. These vessels carry the prison along their ascending courses as as they arise in the alveolar wall, and twine around the bronchioles and blood vessels; and it is here, in the beginnings and in the channels of the lymphatics, that this poison incites new nodular growths, which are genuine tubercles, but differ from those yellow aggregates, or nodules, which are found in catarrhal phthisis, both in genesis and structure. They are evolved from interstitial connective or lymphatic tissue, and are growths, or a hyperplasia, and not mere accretions, like the so-called yellow tubercles. These nodular growths first manifest their appearance in the alveolar wall, the surface of which they force into the cavity. By and by the continuity of the alveolar wall breaks, and the newly-formed interstitial connective tissue cells are forced into the cavity of the air cells. A number of nodules following such a course will very soon overcrowd and over-distend the vesicles, and, very naturally, those infiltrated areas will be cut off from their blood supply and disintegrate, in the same way as those of catarrhal infiltration. This is the stage in which the tubercular growth is so liable to be mistaken for the catarrhal infiltration, and *vice versâ*. Both forms occupy the alveolar cavity, but on minute examination it will be found that one is composed of interstitial connective tissue growth, and the other chiefly of catarrhal products. Frequently, however, the two processes are so intermixed that their respective products are indistinguishable. Thus, then, after catarrhal infiltration has once brought on cavitation, and reinforces itself by tubercular infiltration and cavitation, it is evident that the destruction of lung tissue is very materially accelerated; and this explains why it is that a patient enjoys almost comparative immunity from the disease as long as the continuity of the lung is not broken, and why the disease advances more rapidly after this period has been reached.

This, then, is the tubercular form of pulmonary consumption, and differs from the catarrhal form, inasmuch as it usually is secondary to it. It is decidedly an affection of the lymphatic or connective tissue, while the catarrhal form is an affection principally of the epithelium of the alveoli.

Fibrous or interstitial phthisis, as it is sometimes called, differs, both in course and in duration, from the catarrhal and tubercular forms. It is essentially a hyperplasia of the fibrous connective tissue, or, in other words, an affection of the framework of the lung and the pleura. It is slow in its progress, and is usually preceded by bronchitis and bronchiectasy. It is thus often induced or preceded by a catarrhal inflammation of the bronchial tubes. Tubercles also form an integral element in fibrous phthisis, but the slowness of the disintegrating process allows time sufficient for its products to become better organized, and, hence, there is less danger of caseation and destruction of tissue.

Catarrhal phthisis is, therefore, not only the most frequent, but also, in many instances, the harbinger or the pioneer of the other two forms; hence we will, in conclusion, offer a few remarks in regard to its therapeusis. When we reflect that all portions of the lung are liable to catarrhal infiltration, and that resolution occurs more readily anywhere else than in the apex, the inference is at once forced upon us, that some close relationship must exist between infiltration and the apex. I think these products remain because there is less circulatory, lymphatic and respiratory activity in the apex than in any other portion of the lungs, and hence there is less facility for carrying them off. This assumption is further confirmed when coupled with the fact that in mitral disease, where there is an almost constant hyperæmia or fullness of blood in the pulmonary circulation in consequence, catarrhal infiltration—or tuberculization, for that matter—is almost entirely unknown. The continual hyperæmia does not allow an opportunity for the accumulation of these products, since they are constantly washed away by the serous transudation present in these cases. It is evident, therefore, that any agent which has the power of transfusing a greater degree of activity into the circulatory, lymphatic and respiratory function of the lungs will, just in that measure, clear up the infiltrated alveoli and restore the apex. Fulfilling these theoretical indications, I have, for a number of years, applied moist heat over the apex in these cases, and have certainly derived some very favorable results, as my former communications on this subject show. I believe that by stimulating the affected spot and its surroundings with a hot poultice, the blood and lymph flow become accelerated, and an increased interchange and absorption of the fluids and solids of the part follow. —*Polyclinic.*

MINOR SURGERY AT THE CHAMBERS STREET BRANCH OF THE NEW YORK HOSPITAL.

By G. B. Phelps, M.D.,

Surgeon To Out-Patients, Chambers Street Hospital.

The Out-Patient Department of the Chambers Street Hospital is for the treatment of surgical cases only. There is a class for pathological cases and fractures (except those of the bones of the hand and foot), under the care of Dr. Powers, in which about eighteen patients are treated daily; one for traumatic cases and the fractures above excepted, where about one hundred and thirty-six patients are treated daily under my supervision; and a class for venereal diseases, under Dr. Fuller's care, where about sixty-five patients are treated on Monday and Friday evenings.

As a rule, the patients pay very little regard to cleanliness, and many are almost tramps. The dispensary assistants are, besides two of the house-staff, either third-year students or recent graduates. The work in the traumatic class is done almost wholly by gaslight. These conditions are mentioned to show under what circumstances the work is carried on.

Fresh cases have the surface about the wounded part washed with soap and water, and, if covered with oil, cleansed with ether. The wound is then thoroughly irrigated with a 1 : 1000 solution of bichloride of mercury. If there is hair about the part, this is removed with a clipping machine or a razor.

Incised and lacerated wounds of the scalp, after checking the hemorrhage by clamping and tying any bleeding points, or by pressure, are sutured with catgut, without drainage, unless the wound is very extensive. Contused wounds are similarly treated, unless there is much contusion of the edges, when the wound is packed loosely with wet bichloride gauze. Over the wound a compress of plain absorbent gauze, freshly wrung out of a 1 : 1000 bichloride solution, is placed, with a small amount of boracic acid ointment (twelve and a half per cent. boracic acid in cosmoline) spread on it just over the wound. Over this a thin layer of absorbent cotton is placed and bandaged on. Such cases report in twenty-four hours, but the dressing is not changed unless it is soiled or there is pain. These wounds usually do perfectly well, but a dressing can be rarely left on more than four days, because it becomes soiled, many patients reporting with bandages almost black. For three months there has not been a case of cellulitis of the scalp that has arisen while the patient was under treatment, though primary union is not always obtained, in some few cases there being slight suppuration. These wounds are then opened and allowed to granulate.

In wounds of the fingers, an effort is made to save as much of the member as possible, and surprising successes are often obtained. Wounds that admit of suture are drained with a few horsehairs or catgut strands. A dressing similar to that for scalp wounds is applied. The advantage of such a dressing over a dry dressing of either iodoform, iodoform gauze or bichloride gauze, is that it feels more comfortable, and that when it is removed it comes off without sticking or causing pain, while a dry dressing is usually so firmly held by the slight bloody discharge, that it requires some time and much trouble to remove it painlessly. In this dressing we depend upon the bichloride for antisepsis, the boric ointment being used to prevent sticking. Iodoform we do not use in this dressing, knowing that we have a reliable antiseptic in the bichloride of mercury, the only indication for the addition of iodoform powder being to relieve pain. But an aseptic wound causes little pain, hence the iodoform, which is expensive, is omitted.

From this dressing I have seen only one case of eczema, but the majority of our cases are wounds of the hand, in which the skin is tough. In wounds in which there is much laceration, we think it very important, either to make counter-openings for

drainage, if there is a large pocket, or simply to pack with moist gauze where this is small.

Divided tendons and nerves are sutured with fine catgut, and many excellent results follow. Ether is given in these cases, as a rule, for before operating it is often impossible to know how extensive a wound must be made. A heavy dressing is applied, and a splint to keep the parts at rest in extension or flexion, as the case requires.

Cellulitis has developed while the patient was under treatment very rarely, in only two cases in three months; but a small number apply for treatment with cellulitis already well marked. The history in these cases almost always is, "I didn't think it would amount to anything, and went to the druggist, who put this bit of plaster on." Too much cannot be said against applying strips of plaster to fresh wounds. If a bandage is not needed, we put a small compress of gauze over the wound, and hold this in place by means of plaster. If a cellulitis is just starting, and there is very little tension, or no particular point of pain, the original wound is opened, thoroughly washed with 1 : 1000 bichloride solution, and the parts then wrapped in a large compress wrung out in 1 : 40 carbolic acid, a piece of rubber tissue placed over this, and a bandage applied, leaving one end open so that the patient can, from time to time, pour on a small amount of the carbolic solution. The carbolic solution is preferred to bichloride, as the latter, applied as a wet compress over a large surface, is very apt to cause an eczema. From the carbolic acid solution I haue seen three cases in three months in which large blebs formed, and the epidermis was loosened from a large part of the hand, but this accident is very rare. For women and children 1 : 60 carbolic solution is used. If the cellulitis has gone further, and there is evidence of pus, or there is much tension, incisions are freely made. Where possible, counter-openings are made, and a small rubber drain inserted. The treatment of cellulitis is considered of the greatest importance, and free and early incisions are demanded in the interest of the patients. We never wait for distinct fluctuation, or "pointing."

In the treatment of this trouble cocaine is of the greatest value, and, when properly used, always gives admirable results—that is, injected *into* the skin (*not* beneath it) at the point of incision, or beneath the skin on the proximal side of the point to be incised. For example, to open an abscess on the palmar surface of the distal phalanx, inject about ten or fifteen minims *deeply* into the middle of the palmar surface of the proximal phalanx; then wait two or three minutes before making the incision. These points in the use of cocaine were demonstrated to me by Dr. R. J. Hall.

In one case, five minutes after the injection of fifteen minims of cocaine about the elbow, the patient vomited freely, and three or four others have complained of nausea or faintness after the use of from fifteen to twenty minims. As many patients faint when they first come to the dispensary, either from looking at their own wounds or those of others, it is not easy to know how much effect cocaine had in producing the faintness in these cases.

When wounds are granulating, balsam of Peru on strips of gauze is found to be very valuable in stimulating granulations. Nitrate of silver is sometimes, with advantage, alternated with this. If there is an offensive odor from a sloughing wound balsam will speedily destroy it.

Particular attention is required to prevent granulations from becoming excessive, and when they tend to grow above the cicatricial edge they are removed with a pair of curved scissors, which can be done without causing pain. This is much better than attempting to keep them down with caustics. The bleeding is stopped by pressure, and the ulcer then strapped, if the skin about it is healthy, or small pieces of rubber tissue are placed across the wound, and held in position by a dry compress and bandage. For this purpose rubber tissue is nearly as good as green protective, and much cheaper.

Burns are treated first with iodoform-ointment (twelve and a half per cent. of iodoform), if not too extensive (as on hand and wrist), later with an ointment of starch 25 parts, oxide of zinc 25 parts, salicylic acid 3 parts, and cosmoline 50 parts. Some cases do better under powdered subnitrate of bismuth.

Sprains are treated at first with iodoform-ointment, spread on gauze, which is covered with common cotton, firmly and smoothly applied. If at the wrist, a dorsal splint is used. Iodoform certainly relieves pain in these cases very much. The part is kept at rest about four days, and then, if pain persists, or there is much effusion, Paquelin's cautery is lightly applied, and the part bandaged after rubbing on a little vaseline. The cautery is used at a dull red heat, and applied so as produce a uniform redness over the joint, and should leave almost no scar. Iodine ointment (U. S. P.) is used sometimes, as a counter-irritant, and to hasten absorption. The tincture is rarely used, as it soon produces a hard, thick layer, so that the next application produces no effects on the parts beneath. We find the actual cautery, as used above, produces excellent results in strains of the back, old contusions, and, especially, in teno-synovitis crepitans of the extensors of the hand when combined with rest.

Of ulcers of the leg many are syphilitic, and in these constitutional treatment is the chief measure in producing a cure. In chronic, indolent, and varicose ulcers every effort is made to promptly place the ulcer in a healthy conditton. If the granulations are pale, flabby, and above the surface, they are cut down with scissors and the ulcer strapped for a few days with yellow adhesive plaster. If the base of the ulcer is below the level of the surface of the skin, presenting the "mucous appearance," it is scraped with a sharp spoon and dressed with balsam of Peru. If the skin about the

ulcer is eczematous, an ointment of iodoform or boracic acid is applied. These last cases do better when given moderate doses of iron and quinine. At present the following treatment is being reintroduced, as a few years ago it was used here with success. The surface is washed with 1 : 40 carbolic acid solution and covered with narrow strips of rubber tissue which have been dipped in the same solution. Then a large compress wrung out in a saturated solution of boracic acid is applied; over this, rubber tissue and crinoline bandage are added, and the dressing is left on from four to eight days.

Patients with varicose veins are advised to wear Martin's bandage.

Chancroids with an active erosive tendency are treated by cauterization with nitric acid and 95 per cent. carbolic acid. The latter causes only slight pain and anæsthetizes the part, but is often too superficial in its action, and nitric acid is then applied to the sore, which is dried and dusted over with iodoform powder, and a piece of absorbent cotton packed into the ulcer. The patient is instructed to wash the parts about the sore daily with water, and then dry them thoroughly before applying iodoform and compress. Chancroids which are simply indolent are touched with cupric sulphate and then dressed, as before mentioned, with iodoform.

Chancres are not cauterized or excised. An "expectant treatment" is followed until the eruption appears, when mercury is given by inunction, the ointment or oleate being used. The stomach is thus undisturbed, and tonics, usually indicated, are readily taken and well borne. When the inunctions are commenced the patient is made to use a tooth-brush and castile soap to keep the teeth clean. In addition a gargle of chlorate of potash is given. Unless the precaution of cleanliness is observed the gums soon become tender and bleed readily, but with it, these symptoms rarely develop.

The majority of patients being forced to keep at hard work no attempt is usually made to abort a bubo. In some few cases when rest can be obtained pressure is applied, and in a majority of cases suppuration is avoided. As soon as there is redness and much pain in the bubo, an incision is made without waiting for signs of fluid to appear. The incision is made after the injection into the skin of cocaine, and very little pain is felt. The incision is a free one, parallel to Poupart's ligament, and opens the whole of the tissues involved. The finger is then introduced into the incision, and the spongy mass thoroughly broken down and enucleated, a steel curette being frequently needed when the mass is firm. To open freely the pockets on either side of this cut several others are made at angles to the primary incision. The bubo is then packed with iodoform-gauze and heals by granulation.—*Philadelphia Medical News.*

THE TREATMENT OF COLDS.

(J. H. Whelan, M. D., R. N., in *The Practitioner.*)Of all disagreeable constitutional tendencies, the tendency to "catch colds" is the most disagreeable to the individual, and besides its unpleasantness there is always the danger that a catarrh may outstep its usual limits and develop into some grave inflammation.

Is the nature of common catarrhs generally understood? To a certain extent I think it is, but not fully. Let me enunciate broad characteristics of colds. Catarrhs are excited *de novo* by exposure to wet, colds and draughts. This is a truism. Most frequently they develop in delicate and highly neurotic individuals, in fact in the classes which furnish martyrs to common neuralgia. I believe, moreover, that when once a catarrh is properly established the affected person's breath is infectious, in the acute stage of the disease at least. What than is the nature of the affections? (1) Is it a specific poison comparable to that of the infectious fevers? (2) Does the affection start as an idiopathic inflammation and develop a specific poison which is given off by the breath? (3) Is it of nervous reflex origin purely?

Burger has discovered micrococci in catarrhal secretions, and they are possibly factors in the affection. Let us suppose that these micrococci or these spores are distributed nearly universally in the atmosphere, and are carried in fomites. Let us suppose them in their usual state to be unable to attack the healthy buccal, nasal, or mucous membranes. Let us presume that there is a condition in which the trophic nerves of those membranes become depressed and lose their tonic action by the action of poor blood, or from the periodical neurasthenia of hereditary neurotics. Here the result of section of the trigeminus on the eye is recalled to one's mind, and the fact pointed out by Snellen that ophthalmia did not ensue if the eye was carefully covered with cotton-wool, thereby to a great extent excluding micro-organisms, before the nerve section was made. Let us suppose that by feeling in such pastures the progeny of the attacking micrococci become so virulent as to be able to attack successfully the healthy membranes. We know by Pasteur's experiments the intensive effects of culture on some microorganisms. On these not unreasonable suppositions then all the peculiarities of catarrhs are explainable.

Influenza epidemics would be explained by supposing that within large tracts of country all catarrhal micrococci became suddenly virulent, owing to some climatic or telluric fostering cause, or to some law of heredity or evolution of the organisms themselves. This would account for the extensive and sudden outbreaks which, on first view, seem so surprising.

The usual "codding" treatment of colds, except in the very old, very young, or very delicate, is a mistake. A person suffering from a catarrh should certainly be warmly clothed and avoid draughts; but by shutting himself up in a warm room, by taking warm air baths and lowering medicines, he only promotes the development of the exciting cause of the affection.

"Feed a cold, starve a fever." There is a deal of wisdom in the first part of this advice. A person with a catarrh should take an abundance of light, nutritious food, and some light wine, but avoid spirits, and above all tobacco.

Now as to medicines. All depressants should be avoided. For some time I was in the habit of taking a mixture recommended by Dr. Jules Styrap, composed of minute doses of morphine, antimonial wine, and potassium citrate. This beyond doubt always subdued the acute inflammatory stage, but I have no hesitation in saying I was depressed by its action, and rendered liable to relapses and renewals. Personally I have found the large dose of an opiate in the early stages, as extolled by Sir Thomas Watson and Dr. George Johnson, very unpleasant and of but little use.

Trying to avert an atack by a large dose of potassium iodide failed in my hands. The bromides were useless through all stages. Antiseptic inhalations and spraying afforded temporary relief from the distressing symptoms, but failed to cure.

Belladona, quinine, arsenic I have found useful when given separately—not so much in large as in small doses. When combined I believe them to be nearly specific—prophylactically and therapeutically, if I may so speak.

The formula I invariably use is as follows:—

℞. Quininæ sulphatis, ...gr. xviij ;
Liquoris arsenicalis,.....*m*xij :
Liquoris atropinæ,.....*m*j :
Extracti gentianæ,..... .....gr. xx.
Pulveris gummi acaciæ, q. s. ut fiant pilulæ xii.

Sig. One every three, four, or six hours, according to circumstances. If these pills be commenced in the early stage of a common cold, *i. e.*, when the affection is as yet confined to the nose and pharynx, the affection will be nipped in the bud. At starting one pill should be taken every three or four hours, and later on every six. If a catarrhal subject has a box of these pills always at hand, he has, I believe a weapon wherewith to meet and defeat his enemy. The longest I have seen a cold last whilst the patient was fairly taking these pills was three days. How the remedy acts I do not know, except it be as a powerful nervine and general tonic, bracing the patient's tissues up to resist the attacks of the exciting cause of the affection.

TREATMENT OF ERYSIPELAS,

ROBERT POLLOK, M. B.

The treatment of erysipelas is most varied, nearly every practitioner who sees much of this affection having formulated a certain line of action for himself. This arises to some extent. I think, from the fact that simple erysipelas has a tendency to subside spontaneously in about 5 or 6 days, and often the treatment adopted obtains the credit while nature does the work. I am of opinion that the treatment must depend upon the type of the disease. In all the cases I have seen, the treatment demanded was a stimulating one. I refer to simple general erysipelas. But in localized erysipelas affecting the throat, ear, and pharanx, aconite in small doses, frequently repeated as recommended by Ringer, has been productive of the happiest effects when administered at the beginning of the attack. I will take as a typical example of simple cutaneous erysipelas that form which we so commonly see, commencing over the root of the nose, and spreading over the face and forehead. In such cases, I immediately begin the administration of 20 to 30 minims of tinct. ferri mur. (diluted of course with water) every two hours; and as a protective and palliative, I use: ℞. Gutta Percha, ʒ ii : Chlorof. Meth., ʒ ii solve; Zinc. Olcati, ʒ ii; Iodoformi, ʒ ss. M. Sig.—To be painted over the part affected. The avantage of this preparation over the powdered starch, zinc, or flour, is its comeliness. Of course, previously to applying this preparation. I have the parts carefully washed with tepid water, and often when there is much pain I use the decoction of poppy heads as a fomentation. This treatment usually effects an amelioration of the symptoms, and the disease subsides. But in some cases the course of the disease does not stop here, it runs riot all over the head and neck, and the medicinal treatment then pursued is ammonia, bark, iron and quinine, with perhaps a grain of solid opium to obtain rest. I am happy to state that I have never lost a case of erysipelas, although the duration and severity of the complaint have varied much. The *rational* of the local application above mentioned must be purely protective and palliative by excluding the irritating effects of the cold air, and not by excluding specific germs. The latest researches prove that the schizomycetes or streptococcus erysipelatosus is anærobic, or flourishes where air is excluded, living in and upon the tissues affected. I may note the many methods of treatment recommended, such as compression, or ligatures applied above the seat of the affection, advocated by Velpeau; the application of a solution of nitrate of silver in the form of a ring around the redness (Higginbotham's method); the application of tincture of iodine, white paint, solutions of tannin, silicate of soda, used by Alvarenga of Lisbon; the subcutaneous injection of carbolic acid or salicylic acid directly into the part, and the internal administration of quinine in large doses, or salicylate of ammonium, suggested by Dr. Barclay of St. George's Hospital. These may all be good, but so satisfactory have been the results by the iron and the antiseptic anodyne externally applied, that I have had no reason to depart from that treatment. I earnestly look after the hygienic surroundings of the patient, and give eggs, milk, beef tea, and other stimulating and light diet. The disease may, however, pass into a stage when surgical treatment must be adopted. If simple bullæ or vesicles form, I relieve the tension

by evacuating them, and dress the surface with tartrate of potash and iron lotion in the strength of 10 grains to the ounce of water. When sloughing and suppuration take place I make free incisions; the pus and sloughs thus obtain a free exit; the separation of the mortified parts may be accelerated by the scissors. I then apply an antiseptic solution by means of the syringe or douche, dry the parts thoroughly, and dress with sublimated wood wool. The best antiseptic lotion is corrosive sublimate one grain in five ounces of water, or nearly in the proportion of 1 to 2,000. Koch's solution, as it is now called, is the same as the old "M'Kenzie's" colloyrium. An important point which should not be overlooked in the treatment of erysipelas as well as in so many other affections, is the effectual clearance of the *primæ via* by a good purge, administered at the commencement of the attack. If erysipelas assume a typhoid form, alcoholic stimulants are strongly indicated. Infantile erysipelas I treat on the general lines laid down, although the tincture of iron is not so admissible owing to its griping tendency; acetate of iron is less irritating. When erysipelas commences in the throat, inhalation, or the steam atomizer, with some antiseptic, should be used. I watch carefully for œdema of glottidis. If it does occur, tracheotomy is the only resource.—*Glasgow Medical Journal.*

ON THE TREATMENT OF PLEURISY WITH EFFUSION BY HAY'S METHOD.

Abstract of a Clinical Lecture, delivered at the Hospital of the University of Pennsylvania,

BY WILLIAM OSLER, M.D.,

Professor of Clinical Medicine in the University of Pennsylvania.

GENTLEMEN: You have had in the ward classes during the past month, several interesting cases of pleurisy, which have familiarized you with the clinical history and physical signs of the disease, and I shall, to-day, first direct your attention to certain points in the plan of treatment which we have followed. Let me briefly summarize the history of the cases.

CASE I.—A. B., aged twenty-three; admitted on the 21st. He had been a healthy man. Three days before admission he was caught in a rainstorm and remained all day in his wet clothes. The following morning he had pain in the head, neck, and right side; in the latter situation the pain was of a sharp, stabbing character, and increased by drawing a deep breath. He had fever, lost appetite, had also a sore throat and diarrhœa. When admitted the face was flushed, the respirations 34 in the minute, pulse 100, and temperature 101°. He lay on the left side. Examination showed deficient expansion on the right side, with jerky, inspiratory movements. There was a distinct friction fremitus to be felt and heard below the right nipple, and there was slight dulness in lower axillary and infrascapular regions. On the fourth day the temperature was normal, and there were signs of effusion to the level of the fifth rib.

CASE II.—J. M., aged twenty-four, a well-nourished young man, was admitted on November 12. In 1883 he was poisoned with arsenic, and is now ataxic, the result, apparently, of a peripheral neuritis. His present trouble began three weeks before admission. Four or five days after exposure to cold and wet, he felt a pain in the right side and had a cough, with fever and occasional sweats. He did not go to bed, but gradually got short of breath, and for this symptom he sought relief at the hospital. Shortly after his admission I called your attention to the characteristic physical signs in this case. The effusion was in the left side and reached as high as the lower border of the second rib. The heart was displaced and there was an impulse near the right nipple. You saw him in clinic two weeks ago to-day.

CASE III.—William G., aged twenty-three, admitted to the Philadelphia Hospital October 12th with shortness of breath. He had been ailing for seven weeks. Had never had a chill or pain in the side. Had been feverish at times, had sweated and had been gradually getting short of breath. Though not able to work, he kept about and had not been in bed. There was left pleural effusion with absolute dulness reaching to the clavicle and displacement of the heart to the right; with the hypodermic needle the fluid was determined to be serous. He had been drinking before admission, and for nearly ten days there was mild delirium tremens.

The effusion in these cases varied from the slight amount in Case I., which would probably have disappeared in time without medication, to the large exudation in Case III. filling the side of the chest. In treating pleuritic effusion we have to choose between medicinal and operative measures, and these cases illustrate the rules which I have already laid down for your guidance. In the first two cases the symptoms were not urgent, the condition of the patients good and the duration of the disease not prolonged. In Case II. we were in doubt whether or not to aspirate, as the line of dulness reached to the second rib; but I am glad we decided to try first the effect of medicines.

Now the usual routine in treating pleural effusion is to give purgatives, diuretics, and diaphoretics, but the plan to which I wish specially to call your attention this morning is the use of concentrated solution of saline cathartics introduced by Professor Mathew Hay, of Aberdeen. We have employed his method extensively in dropsies from various causes and with very satisfactory results.

Dr. Hay found, when investigating the physiological action of saline cathartics, that if the salt was given in a very concentrated form, when the intestines of the animal contained very little fluid, it produced a very rapid concentration of the blood owing to the abstraction of water to form

the intestinal secretion excited by the salt. If the saline was not given in concentrated form or was administered at a time when the bowel contained much liquid, the action upon the blood was very slight. The effect is very rapidly produced; in one instance, in a man after giving six drachms of sulphate of soda, the number of blood corpuscles per cubic millimetre rose from 5,000,000 to nearly 7,000,000, owing to the great loss of liquid in the free purgation. A few hours later this increase was no longer apparent, as the blood had rapidly abstracted the tissue fluids and so replaced the amount lost. You know that the pinched, shrivelled aspect of a person who has had a severe choleraic attack is due in large part to the absorption of the tissue lymph to supply the rapid waste caused by the liquid stools.

It is on this principle that the use of cathartics in dropsical effusions is based, and Hay's method is new only in the application. In the administration of the salt, the solution must be concentrated, and taken at a time when there is very little fluid in the intestines. Our usual plan is to order the patient to take nothing after the evening meal, and then, an hour or so before breakfast, the salt is given dissolved in as little water as possible. The sulphate of magnesia is preferable to the sulphate of soda, as it is more soluble. Four or six drachms in an ounce of water is the usual dose, but two ounces, or even more, may be given. The patient must not drink after it. This usually produces from four to eight watery stools, without pain or discomfort of any sort. It very rarely disagrees, though you remember in the case of Mrs. C., the patient with extensive anasarca from Bright's disease, we had to give up this plan on account of the vomiting it induced. Dr. Hay calls attention also to another point which we have repeatedly verified, namely, that the salt acts also as a diuretic. He found experimentally that the blood underwent a second concentration, not so marked, but lasting for the greater part of the day, and this he rightly attributed to the diuretic action of the absorbed salt.

Case II. is a striking instance of the value of this plan of treatment. Two weeks ago I demonstrated to you that the fluid reached as high as the third rib, and was rapidly subsiding. He has been given every second morning, since his admission on the 12th, half an ounce of sulphate of magnesia in an ounce of water, and, as you can see by the chart, this has produced from three to nine watery stools. His diet has been restricted somewhat in liquids, but he has had no other medicine. We find now, on examination, good expansion on the left side; the heart has returned to its normal situation; on palpation a distinct friction can be felt in the axillary region; tactile fremitus is present; on percussion the note is clear in the antero-latetral regions, and posteriorly it is resonant almost to the base; the breath sounds are heard well over the whole side, with the exception of the extreme base, where they are still feeble. The patient was discharged the day before yesterday to go on duty as night watchman on the surgical side. We may regard this as an exceptionally good result. It is the third instance in which I have seen a large effusion disappear rapidly treated by Hay's method.

Exudations of less extent will sometimes disappear in a few days. Case I. we saw early in the acute stage, and, to relieve the distress, he was wet-cupped with marked benefit. This is a measure which I do not often employ, as I find that morphia subcutaneously fulfils the indication; but here the pain was rapidly relieved and the breathing became much quieter. The effusion in this case reached only to the fifth rib. He had four or five doses of the concentrated saline solution, and was freely purged. To-day there is scarcely a trace of fluid, and you notice that, on percussion, the lung is clear almost to the extreme base.

In Case III. saline cathartics were also employed, but other and more prompt measures were indicated. The left chest was full, the percussion note on the clavical was absolutely flat, and the fluid had been accumulating for at least seven weeks. Under such circumstances the withdrawal of some of the fluid was imperative. It is a good rule to aspirate when the fluid reaches the second or third rib. The removal of from twenty to thirty ounces will often suffice, and you can trust to medicines to remove the balance. When you find the fluid at the level of the clavicle, aspirate at once, as connected with this condition there are certain dangers which we cannot ignore. Such patients are liable to sudden and alarming attacks of dyspnœa This occurred in Case III., and my house physician, Dr. Donohue, wisely withdrew at once between two and three pints of fluid. There are instances, also, of sudden and fatal collapse under these circumstances. Such a case occurred last spring in the Philadelphia Hospital, when I was on duty for my colleague, Dr. Tyson. A woman was admitted, stated to be suffering with pneumonia. I saw her for a few minutes at the conclusion of my visit, and made a rather hasty examination, and determined the existence of dulness on the left side. She died suddenly and unexpectedly the next day, and, to our mortification, we found the left chest full of fluid, the lung greatly compressed, and the heart pushed far over. We could not determine the cause of the sudden collapse, but I feel certain it might have been averted by timely aspiration.

In Case III. we would not trust to the saline cathartic alone as the patient's general condition was not good. He was aspirated twice subsequently, and had an occasional morning purge. At present he is convalescent, has gained in weight and strength, and although there is still dulness at the left base, I believe it is due chiefly to thickened pleura and not to fluid.

My experience with this method is sufficient to justify a strong recommendation of its merits. In the general dropsies—renal or cardiac—the results

have been equally good. There have been failures, to one of which I have already referred, and I have on several occasions heard complaints of nausea following the strong and bitter solution. In another case last summer, the patient, a young man, thought the daily purgation and a rather dry diet terrible hardships, and he escaped from the hospital.

The essence of the method lies in getting the strong salt into the intestine at a time when the fluid contents are scanty. The concentrated bitter solution excites a copious secretion from the intestinal glands, which distends the intestine and induces rapid peristalsis. Saline, as well as other purgatives, have long been employed in the treatment of dropsies, but this plan of Hay's is so simple, produces so little irritation, and at the same time acts powerfully, and as you have seen, effectually, that with us it has superseded other methods in cases in which we wish the action of a powerful and prompt cathartic.—*Medical News.*

THE DIURETIC ACTION OF MERCURIAL PREPARATIONS.

The diuretic action of calomel, know to the older physicians, has been, as the readers of the GAZETTE are familiar, again brought to the attention of practitioners, and we have published testimony from a number of different observers which indicates that under certain circumstances calomel is one of the most active diuretics that we possess.

That this diuretic action is not peculiar to calomel, as has been claimed by a number of writers, but is also, though perhaps to a less degree, possessed by other mercurial preparations, has been brought into prominence by Dr. Rosenheim in a paper read before a recent meeting of the Verein für Innere Medicin of Berlin (*Therapeutische Monatshefte,* April, 1887).

The author employed corrosive sublimate, yellow iodide of mercury, and the amidato bichloride in amounts of from 1½ to 2 grains given daily. These preparations of mercury also proved themselves active diuretics in these large doses, but they produced more irritation in the intestinal canal than calomel, and also fell behind calomel in the degree of diuresis. On the other hand, the stomatitis produced by these mercurial preparations was but slight. Diuresis only follows when large doses of some mercurial preparation are rapidly absorbed, seemingly indicating that the production of diuresis is due to the acute mercurialization of the organism. The correctness of this view is rendered more probable by the large amounts of mercury which are excreted through the urine.

Dr. Rosenheim's experiments with calomel still further strengthen its position as a diuretic. He employed it in sixteen cases of heart-disease complicated by dropsies, in several of which kidney complications were also present. In nine of these cases a prompt diuresis and disappearance of the œdema followed the use of calomel. In four its action was but moderately successful, and in three it entirely failed. It is worthy of notice that in all these cases before calomel was administered digitalis had been tried and proved inefficacious. Since it has been found that calomel has no direct action either on the heart or kidneys, kidney-disease offers no contraindication to the use of calomel for the purpose of producing diuresis. In fact, Dr. Rosenheim has employed calomel for this purpose in purely nephritic dropsy. It is true that the results, however, were unfavorable. In the greater number of patients to whom calomel was administered a more or less severe stomatitis was produced, and in nearly all cases diarrhœa.

In the discussion which followed the reading of Dr. Rosenheim's paper, Dt. Leyden reported that he had treated three cases of cirrhosis of the liver with calomel. In one failure had resulted, in one marked but temporary relief, and in one a permanent amelioration.

In the treatment of dropsy from heart disease, he regarded calomel as a valuable contribution to our therapeutic measures.

Fübinger, on the other hand, claimed that the diuresis produced by calomel, although perhaps occurring in a high degree, was invariably ephemeral, and he regarded its mode of production to dependent upon a direct action on the glandular epithelium of the kidney, since calomel never acted as a diuretic in œdema dependent upon previous parenchymatous nephritis.

Dr. E. Birô, of Budapesth, has also confirmed the general experience of others as to the marked diuresis which follows use the of calomel, and although in his practice stomatitis, colic, and diarrhœa were frequently produced, he regards these complications of but little moment in view of the powerful action of the remedy. He has found that the degree of diuresis depends upon the intensity of the œdema, and he relates one case of mitral in suffisiency in which the amount of urine was increased on the fifth day from eight hundred to six thousand eight hundred cubic centimetres. For the stomatitis, which is at the worst merely transient, he recommends a mouth-wash of potassium chlorate, and small doses of opium powder for the diarrhœa and colic.

Terray (*Pest med. chir. Press.*, 1886) and Weinstein (*Wien. med Blatt.*, 1887, No. 7, p. 206), whilst affirming the diuretic effects of calomel, as reported in the *Medical Chronicle,* May, 1887, draw attention to the evils which may follow its administration. Terrhy states stomatitis occurred in all his cases, and its intensity seemed directly proportional to the diuresis.

Weinstein records a marked increase in the excretion of urine in four cases of pleural effusion, two cases of cirrhosis of the liver, and one case of Bright's disease. But he found great evils arise from the administration of calomel as a diuretic, profuse diarrhœa, stomatitis, and salivation sometimes occurring after even small doses. The diuretic influence of the drug, he says, is not of long

duration and he recommends it chiefly in ailments which have run their acute course, leaving œdema behind them, and in those where the mercurial itself is likely to exercise a beneficial effect, *e. g.*, in pleural exudations.

NUTRIENT ENEMATA

Ewald, of Berlin, writes to the *Therapeutische Monatshefte* for April, 1887, his usual methods of preparing such enemata as folllows:

In hospital practice an enema may be made most simply by beating up three or five eggs with four or five ounces of a fifteen or twenty per cent. solution of grape-sugar, and this mixture may be carefully injected, as most convenient. If needed, starch solution, or a mucilage-water, may be added, or, if there exists much irritation, a few drops of tincture of opium. An injection of about eight ounces of tepid water, or solution of common salt, should precede the nutrient enema, and the latter should not be given until the bowel is thoroughly emptied; otherwise the nutrient matter may be at once rejected. Enemata should not be larger than eight or nine ounces, and it is better when this amount is given in two or three doses during the day.

When more elaborate methods can be followed, two or three eggs should be beaten with a spoonful of cold water. As much powdered starch as the point of an ordinary kitchen-knife will take should then be added, and a small cup, or half a large glass, of twenty per cent. solution of grape-sugar, which may be purchased at any chemist's. The whole should be gently heated, and a wineglassful of common red wine added.

The mixture should then be gently stirred or beaten, and the caution should be observed not to heat it so hot as to coagulate the egg albumen. When ready for injection the quantity of fluid should not exceed a half-pint.

If peptones can be easily procured, a teaspoonful of the peptone may be added to the solution of sugar; while advantageous, it is not absolutely needed, for eggs prepared without peptones are easily absorbed.

The enema should be given with a syringe whose terminal tube is long and flexible, or an irrigator, whose rectal is large and flexible, may be used. After taking enemata the patient should be kept quietly upon the back, or on the side, for some time.

HYDROCYANATE OF IRON IN THE TREATMENT OF EPILEPSY AND NEURALGIAS.

By G. W. Baylor, M. D.

Like many other preparations of the ferruginous type, hydrocyanate of iron appears capable to subserve quite a number of indications, though its predominant value is exhibited in the treatment of eiplepsy. My attention was first called to this remedy in the treatment of epilepsy by Prof. D. S. McGugin, of the Iowa Medical College, in the supplement of the *Journal of Materia Medica*, in the year 1872, in which he speaks of it as the remedy *par excellence*, and cites a number of cases that were permanently cured by this drug alone. Having at that time under my care and treatment a young man aged eighteen years, who had been a sufferer from that terrible disease, "epilepsy," since early childhood, and which had resisted the action of all remedies then known to the medical profession, I determined upon a trial of the hydrocyanate of iron, as it was a case which seemed to demand such a combination or such a remedy—as his general system was in a bad condition, which is usually the case after a protracted course of treatment with the bromides.

I wrote to Messrs. Tilden & Co., New York, who kindly sent me a sample of the iron. I then put my patient upon the following:

℞ Iron hydrocyanate
Pul. valerian a a gr. cxx

M.—Ft.—Pil. No. 120. S.—One pill three times daily after meals.

Each pill contains a grain of iron and one grain of valerian. The dose was gradually and cautiously increased, so that at the end of three months my patient was taking eight grains of the drug daily. At the expiration of this time (three months from date of first treatment) I had the pleasure to see my patient greatly improved; his appetite and digestion which had been bad, now good; general health improved; he was no longer irritable and gloomy, but was sprightly and hopeful, and looked forward with confidence to an ultimate and permanent cure. The paroxysms, which had been frequent and severe, had entirely ceased. Treatment continued. Patient died about six months afterward, or nine months from date of treatment, from an intercurrent disease. I believe if patient had lived or been put upon the hydrocyanate of iron treatment sooner, that a permanent cure would have been effective. There is one thing sure in this case, that it controlled the paroxysms better and more effectually than any remedy that had been administered before. It possesses this advantage over the bromides, that it not only controls the paroxysms better but it does not impair the general health of patient like the latter. Since that time I have administered this remedy to some eight or ten cases with decided success—about half of this number being cured, others being old and chronic cases—were more or less benefited. Now I do not claim that hydrocyanate of iron is a specific for epilepsy, but I do claim, that, if judiciously administered and continued for a sufficient length of time, "say one year," that it will cure more cases than any remedy or remedies known to the medical profession. It is an excellent remedy in the treatment of the various forms of neuralgias. It can be combined with sulph. of quinine, sulph.

of morphia, or the extract of henbane, as each individual case may require. It exerts a powerful influence over the functions of the uterus, and when combined with the extract of belladonna I know of no remedy better to relieve congestive dysmenorrhœa or irritation of the ovaries when of a neuralgic character.—*S. W. Med. Gazette.*

MILLTOWN, IND.

RINGWORM.

(Dr. Henry Brown, Manchester.—*British Medical Journal.*) The subjoined formula for the local treatment of ringworm is suggested by Dr. Payne's lecture on the treatment of that epithytic disease. In sending it I am simply handing down a form received from others, and used in the out-patient practice of the Manchester infirmary, many years before the publication of the British Pharmacopeia. When the acidum sulphurosum was made official, it was used for a time instead, but we had to revert to the old form made up of materials fully recognized and explained in Squire's Companion. The form is: ℞. Sodæ hyposulphitis dr. j; solve in aquæ fl. oz. viij; et adde acidi hydrochlorici fl. dr. j; for outward use only. The use of this lotion, as water-dressing covered with oiled silk, and accompanied by daily washing in soft soap and water, has proved as perfectly satisfactory, as Dr. Payne says the principle of the treatment of ringworm is perfectly simple. It fulfills Dr. Payne's conditions, and kills fungus. I presume the sulphurous acid gas acts beyond the limits of the aqueous solution.

NEW REMEDY FOR CYSTITIS.

Having seen nothing concerning the new remedy for cystitis and hyperæsthesia of the genito-urinary tract, Pichi (Fabiana imbricata), and being very much pleased with it, I will report, briefly, its action in a few cases. The first case was one of cancer of the uterus, where the whole anterior part of the vagina was indurated aud contracted—the patient having to urinate every half hour all night, and the pain would start the tears every time. I gave the following prescription: ℞ extract pichi ʒ vj., liquor potass., ʒ ss. elixir aromat. q. s. ʒ iij.; a teaspoonful once every three hours. In less than two days—in fact, the first night—she had to get up but once. She took the medicine irregularly, as required, until she returned home, which was three weeks after, and it controlled the painful urination completely. Neither did she have the backache, which had been a constant accompaniment heretofore.

Case 2.—A lady, with frequent and painful urination, having to get up four times at night. She had been overtreated by one of the two numerous class who see a cause for every ill that woman is heir to through a vaginal speculum. In this case the medicine acted equally kind and promptly, remedying the backache as well.

Case 3.—Man with a *mild* gonorrhœa. Stopped all scalding of the urine at once.

Case 4.—An old lady, aged eighty-three, who said it appeared very strange none of the doctors could do her any good. She had to get up several times at night to urinate, but she had an idea that there were no doctors except old men. I promised the medicine should relieve her in forty-eight hours. Because a neighbor had got along so well with the fever, she became reckless enough to trust a young doctor's word, and was all right in twenty-four hours, and has continued so since.

I have tried local applications in two cases of vaginitis, and they were greatly benefited, and ceased using it. Am now anxiously watching for an old man, with prostatitis and cystitis, to come along. I owe so much to ecclecticism, in the short time I have been investigating it, that I wish to inform the brethren of that school, concerning a new weapon of "specific" tendencies, and increased consumption will lessen the cost. I believe P., D & Co. alone handle it now.

P. S.—Have considerably lessened the first-named dose; now give ten drops once in three hours.—*California Med. Journal.*

TREATMENT OF PROLAPSUS ANI IN INFANTS.

Dr. Betz, of Heilbronn, relates in the *Memorabilien*, 1886, Heft 4, the case of an infant five months old which had been afflicted with prolapsus ani for five weeks. Cold water enemata, ice suppositories, dusting with pulverized alum, tannin locally and internally opium, bromide potassium. and even injections of ergotine had been employed without benefit. The little patient was in a deplorable condition, greatly emaciated, covered with large and small boils, and intertrigo; it was incessantly straining and crying. The prolapsed bowel was a livid, conical plug, 5½ cm. in length; it was readily reduced, but pressure being removed it was shot out again by the straining of the child. Profiting by a knowledge of the treatment previously used, he at once determined to resort to nitrate of silver applications, but as the application of stick caustic always acts unequally on the mucous membrane, and may result in ulceration, he made a solution of argent. nitr. 1. 0, sulphuric ether 5 0, alcohol 25.0. This solution, though it gives rise to some smarting, can be evenly and equally applied and enters the tissues to a considerable depth. The prolapsus was thoroughly painted with the above solution, and even after a few minutes it became paler, began to shrink, and could be reduced more readily. To act on the upper portion of the mucous membrane a small piece of alum was introduced high up into the rectum. To prevent the bowel from slipping down, and to exert continued pressure on the anus, the nates were firmly pressed together and held in this condition by three broad strips of adhesive plaster, which were applied on either side, running from the anterior surface of a

thigh across the seat to the opposite anterior surface of the abdomen. The next object was to stop the tenesmus and to prevent defecation, which was accomplished by keeping the child slightly under the narcotic influence of opium, and restricting its diet to small quantities of milk and water. The tenesmus stopped at once, and flatus was freely passed in twenty-four hours. The dressing was reapplied after two days. No prolapse occurred. The anus was cleansed with a wad of cotton steeped in carbolized oil, five per cent., and a piece of alum was again inserted. The anus was found drawn into folds and contracted. After three days, a new dressing was necessary. The gut being slightly prolapsed was treated with the stick caustic. Two days later the dressing was permanently removed. Stools came on without tenesmus. In order to insure contraction of the anus, he ordered it touched with alcohol for a few days. The cure was completed in eight days. Betz, though he is inclined to attribute much of the rapid success to the application of nitrate of silver, claims that the combined treatment carried out by him is entitled to the credit for the same, and would in a similar severe case not do without the adhesive dressing, the opium, the restricted diet and the alum suppository, in addition to the nitrate of silver application, while in the milder case nitrate of silver, opuim and restricted diet would be sufficient for a cure. No relapse occurred.

ABSORPTION FROM THE MUCOUS MEMBRANE OF THE URINARY BLADDER.

The question as to the occurrence of absorption through the mucous membrane of the urinary bladder has often been considered both at the bedside and in the laboratory, but the results have hitherto been sufficiently discrepant to leave room for more exact work on the subject. The latest contribution towards a solution of the problem bears the mark of exact scientific observation, and seems to us largely to settle the matter. In the current number of the *Journal of Anatomy and Physiology*, there is a paper on "Absorption from the Mucous Membrane of the Urinary Bladder," by Dr. Herbert H. Ashdown, late senior demonstrator of physiology in the University of Edinburgh, in which a critical summary of the work already done is given, and a series of carefully-conducted experiments is reported. The observations were made on rabbits and dogs, and consisted essentially in the analysis of results obtained by the intravesical injection through the urethra of substances possessed of known physiological properties or readily estimated chemical reactions. The author divides his experiments into three groups: (1) Those in which the drugs administered have a sufficiently distinct physiological action of their own to indicate their presence when absorbed into the system. (2) Those in which the renal elimination of the drugs given can be readily demonstrated. (3) Those in which the quantitative analysis of a solution of known chemical composition can be conducted after it has remained for several hours in the bladder. The results of the triple series are strikingly similar, and appear to justify Dr. Ashdown's conclusions. These are: (1) That absorption of a very large series of chemical substances does take place from the mucous membrane of the urinary bladder when in a perfectly healthy condition. (2) That the urinary constituents themselves—those substances eliminated by the kidney as effete products of the system—are absorbed from the bladder in varying proportions, this applying more especially to the water and urea, but also, though to a less extent, to the inorganic solids. (3) That the decree of distention of the bladder plays a most important part in increasing or diminishing the rapidity of such absorption. (4) That regular rhythmical contractions take place in the muscular wall of the bladder; that these contractions are largely influenced by the degree of distention of the bladder, being most marked with a moderate amount of distention of the viscus, and but feebly marked in slightly distended or in over-distended conditions; and that the character of these contractions is largely affected by the nature of the fluid contained in the bladder.—*The British Medical Journal*, February 12, 1887.

TREATMENT OF NOCTURNAL ENURESIS.

Dr. Alexander Harkin in a paper on this subject says:

I have long since discarded belladonna and bromide potash as insufficient remedies, and have adopted the use of the derivatives, and revulsives, such as dry and wet cupping, or blisters to the nape of the neck, applied as high as possible and as close as circumstances will permit to the neighborhood of the foramen magnum occipitale and the region of the medulla oblongata.

I have had but seldom to apply to the cupping; one full vesication being generally sufficient; a blister three inches in length by two in breadth, either by emplastrum lyttæ, or the linimentum cantharidis of the Pharmacopeia, applied vertically, suffices. It is very seldom that a second application is required; occasionally, especially in females, after some months of respite, there may be a call for the renewal of the remedy; in obstinate cases and in grown up patients, dry or wet cupping may be requisite to complete the cure.—*Provincial Med. Journal.*

VENESECTION IN PUERPERAL ECLAMPSIA.

Of the twenty-five cases which have come under my observation during the past thirty-five years, in all there existed more or less arterial tension and increased blood pressure, which constituted a factor of importance in the progress and termination of the disease. With a view of averting the evil

consequences of this influence on the circulation of the brain, I am convinced that venesection is a remedy which cannot be dispensed with in the treatment of eclampsia. I can say with truth that all my cases in which it was resorted to early, freely, and judiciously, have recovered with a single exception. In this case, after modern depletion, anæsthetics were used too freely, to the exclusion of other remedies. One of the earliest and most manifest effects of venesection is that of unloading the engorged venous system, the lungs, the right cavities of the heart, and the cerebral circulation. If the combined influence of inordinate action of the heart and excessive engorgement of the venous sinuses of the brain, be permitted to continue, the delicate structures of that organ must suffer irreparable injury from pressure, and profound coma result. In these cases of profound coma with stertorous breathing, frequent and bounding pulse, increased temperature, when the scene is varied by repeated paroxysms of spasms, let us not be misled in our treatment by any false theories in the pursuit of a vacillating policy. There is absolute safety in the lancet judiciously and timely applied under these circumstances. The state of pregnancy, above all other conditions, is the most tolerant of depletion. The enormous quantity of blood often lost during labor without serious results sustains this opinion. The measure must not only be resorted to early to avert impending danger to the cerebral structures, but copiously, to break down permanently arterial pressure. From sixteen to twenty four ounces will probably suffice to cause a decided amelioration of the symptoms. As a usual result, the action of the heart will be slowed, the pulse will become soft. The impulse of the organ will be diminished, temperature will decline, coma will be partially relieved, consciousness will return temporarily, and cyanosis will diminish. But depletion cannot accomplish everything. There may be a return of trouble. But when these desirable objects have been obtained even temporarily, we have a favorable basis for the application of our eliminative, anæsthetic, and sedative remedies.—Bedford Brown, M. D., *Journal of American Medical Association.*

Phosphate of lime is strongly recommended by Dr. Rebory for the night-sweats of phthisis. M. Potain, and after him Dr. Rebory, employ the tricalcic phosphate in doses of four grammes, often necessarily increased to eight and fifteen grammes. The excellent results obtained are attributed by Dr. Rebory to some special action of the medicine upon the perspiratory apparatus. It would seem more likely that the general improvement in the condition of the patient brought about by the phosphate should be the reason for the diminution of the night-sweats, one of the symptoms most indicative of the great debility of persons subject to phthisis.—*Phil. Med. Times.*

PERMANGANATE OF POTASSIUM IN THE TREATMENT OF ECZEMA.

The first case was that of a child, two years of age, who was covered with eczema and impetigo. Various treatments had been tried in vain, and he was ordered a daily bath of permanganate of potassium, of the strength of 15 grains to the bath of water, the child to remain in it till the water turned brown. Since then Dr. Hullman has used the remedy both in adults and children, and mostly with good effect. When the skin is much covered with scales or scabs it should first be well brushed with soap and water. In another case of very chronic eczema of the back of the hand, where the usual remedies had been tried without success, a solution of 10 grains of the salt to an ounce of water was applied freely with a brush. The disease disappeared in about ten days. A third case of eczema of the face in a young lady also yielded to the treatment in fifteen.—*London Medical Record.*

ON NOTCHES IN THE UPPER CENTRAL INCISOR TEETH WHICH RESEMBLE THOSE OF SYPHILIS.

There is a state of notching of the upper incisor teeth which affects the two central ones of the permanent set, and produces a condition very deceptively like that of syphilis. The notches are central, and very conspicious. A chief point of difference from the syphilitic tooth is that the tooth is usually wide instead of narrow at its free edge. Syphilitic teeth almost always show narrowing, like a screw-driver, as well as notching. Another point of difference is that the teeth, when looked at carefully, are seen to be craggy and very hard, not worn as the syphilitic tooth. In a very marked example of the pseudo-syphilitic notching, the father of the patient told me that the condition was hereditary, and the youth's mother had teeth of the same kind. In this instance, there was no history of fits in infancy or of the use of mercury or teething powders. Nor, indeed, were the conditions those of stomatitis, or mercurial teeth. The defects occurred in pairs of teeth, and did not damage the whole row. Nor were the first permanent molars—the test teeth of the mercurial set—involved. I have in several other examples of craggy teeth been assured that the peculiarity was in the family. I feel certain, therefore, that we must admit inheritance as an occasional explanation of peculiarities in the form of the teeth. I was once shown, in one of the Paris hospitals, a pair of teeth such as those which I have above discribed, and great surprise was expressed that I could not admit that the were characteristically syphilitic.—*Jonathan Hutchinson, in the British Medical Journal.*

TREATMENT OF NIGHT-SWEETS WITH PHOSPHATE OF LIME.

Doctor Rebory has added his observations to those made some time ago by Prof. Potain and Guyot, and comes to the conclusion that the phosphate of lime is the most afficacious remedy against the night-sweats of tuberculous patients, not only because it allows of an almost indefinite continuance of administration without bad results, but because in the largest number of cases it has given the most favorable results. Prof. Potain finds that when doses of from four to six grams remain without effect, increased doses up to 15 grams attain the desired results. Sometimes also the absorption of the medicament does not take place and hence its inactivity. One must always administer it in a soluble form, either as acid phosphate or lacto-phosphate of lime or even adding to its administration it in form of powder, some acid mixture.—*Weekly Medicol Review*

A CASE OF EXTRAORDINARY FECUNDITY.

On Sunday last a woman, aged about 35 years, was delivered at the Toulouse *Maternité* of three children at full term (two boys and a girl), all three, being perfectly formed and full of life.

The same woman, within four years, has had two other twin pregnancies, with the above, she has given birth to seven children in three confinements and within an interval of four years.

The seven children are alive.—Translated for the *Record* from *Le Journal de Geneve*—SEUSSE.

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CHRONIC LARYNGITIS AND ITS SEQUELÆ.

The *N.Y. Medical Record* of August 20th says: That Dr. Hunter Mackenzie publishes a lecture on chronic laryngitis and its sequlæ. Simple chronic laryngitis and thickening of the laryngeal structures may occur as a consequence of acute laryngitis, or from repeated attacks of the subacute variety; occasionally its mode of development is protracted and insidious. It may be partial—that is, only one-half of the larynx may be thickened permanently—it may be general, affecting more or less all the intrinsic structures. The question of degree or locality of the inflammation bears an important relation to prognosis. Chronic laryngitis may be primary or consecutive. Primary chronic laryngitis indicates that the laryngeal affection has not been preceded by any local or general affection; the term consecutive may be applied to that variety which precedes or supervenes during or after the course of the zymotic diseases, malignant disease, or pulmonary phthisis, or which is the result of extension from the nares or pharynx. In simple chronic laryngitis there is very seldom any true ulceration or loss of substance, unless there is evidence of struma, tuberculosis, or syphilis. The character of the voice almost entirely depends upon the vocal cords. Complete aphonia (whispering voice) is, in the absence of nervous or mental causes, indicative of severe laryngeal changes, and shows destruction of the vocal cords, or of the cords and ventricular bands; it is a point to be remembered that a fairly effective voice can be produced by the ventricular bands, should the vocal cords be destroyed. Chronic laryngitis, in addition to the symptoms produced on the voice, respiration, cough, etc., may sometimes be the cause of gastric disorders; when pharyngitis is present, and the saliva is in excess, or when frequent movements of swallowing are made, owing to the sense of tickling at the back of the throat, an excessive amount of air is swallowed, giving rise to gastric flatulence. The following are some of the sequelæ of chronic laryngitis. In the insiduous form, the possibility of tubercular degeneration is always present; in those cases it is only by the examination of the sputum or laryngeal secretion, and the presence of the bacilli of tubercle being detected, that one can be certain the case is one of tubercular disease. Another sequela of chronic laryngitis is the formation of new-growths; these may be papillomatous, mucous, fibrous, or cartilaginous, according to their seat of origin. The more chronic a case is, the more likely is the supervention of the most serious of all sequelæ, the tubercular degeneration. In the case of malignant disease of the larynx no definite conclusion should be arrived at without examining microscopi-

cally the sputum or pieces of the growth, as in its early stages, and even in its later stages, malignant disease possesses no distinguishing characters to the naked eye. With regard to the treatment, it must be essentially of a local character to be of any use, by means of inhalations, sprays, powders or pigments. In well-marked cases recourse should be had at once to pigments, and of these nitrate of silver is the best. Commencing with a solution of thirty grains to the ounce, the strength should be gradually increased every ten to fourteen minutes, until one hundred and twenty grains to the ounce or even more are used. These pigments ought to be applied locally by means of a laryngeal brush, under the guidance of the laryngoscope, at first three times and after twice a week, over a period of several months; this energetic treatment is necessary only in well-marked cases of thickened vocal cords, or of the intra-laryngeal mucous membrane. In chronic laryngitis dependent upon chronic nasal catarrh, attention should be directed to the nose; the nasal passages ought to be frequently cleansed by means of a solvent spray (one drachm of bicarbonate of soda to a pint of water), and immediately after an astringent solution ought to be applied, such as sulphate of zinc or acetate of lead, one or two grains to the ounce of water. At the same time the pharynx should be occasionally stimulated by the application of a solution of chloride of zinc, twenty or thirty grains to the ounce. In granular pharyngitis the application of London paste, or of the galvanocautery, to the prominent follicles is usually necessary. When chronic laryngitis has ended in the formation of distinct growths, they must be removed by intra- or extra-laryngeal surgical measures. Certain of the sequelæ of chronic laryngitis may necessitate the opening of the windpipe, and the operation of tracheotomy is to be preferred to thyrotomy, if the same objects can be obtained by it. The rest and freedom from irritation that is obtained after tracheotomy often cure a chronic laryngitis which may have become serious, and in cases of tubercular disease much comfort can often be given to the patient by the early performance of this operation. The author concludes his lecture by urging on all medical men the importance of treating cases of chronic laryngitis with promptness in the early stages, so many cases being neglected at first, when some active measures might be taken, which become useless if deferred.

STOOPING FORWARD.

Under this caption, the *Lancet* says: Every one knows that stooping forward, particularly after rising quickly from bed in the morning, when the stomach is empty and the heart has less than ordinary support from the viscera below the diaphragm, is very apt to occasion a form of faintness with vertigo, not unlike that which occurs in sea-sickness. We do not at the moment speak of the faintness and giddiness from cerebral anæmia, which are directly consequent upon suddenly assuming the erect, after long continuing in the recumbent, posture, but of the more alarming sensation of being in the centre of objects which are rapidly passing away, usually from left to right, with loss of power to stand or even sit, and an almost "nightmare" feeling of inability to call for help or do anything to avert catastrophe, while throughout the experience the sufferer retains painfully acute consciousness. This, we say, is familiar as one at least of the effects not uncommonly produced by stooping forward under the special conditions indicated. With many other varieties of the vertigo consequent upon heart weakness or cerebral anæmia, observation or experience has made us all acquainted. We can not, however, help thinking that the consequences of even partial compression of the veins of the neck, offering an obstacle to the return of blood from the head, with its important organs, are not so well recognized. The peculiar form—or, more accurately the several forms—of headache distinctly caused in this way when the head is long bowed forward on the chest, bending the neck on itself, can not fail to occur to every one; nor will the high tension of the eyeball, the turgid and heavy eyelids, the snuffling note, the deafness, with buzzing or throbbing in the ears, the heavy breathing, and the puffed and perhaps flushed or darkened color of the face, resulting from the obstructed venous circulation through the bended neck, be forgotten. There are other and more perilous, though secondary, effects of leaning forward when the heart is weak, or the blood-vessels are not so strong as they ought to be, which should not be overlooked. Beyond question the extra strain thrown upon the apparatus of the circulation by anything that impedes the free passage of blood through almost any part of the venous system is more severe and dangerous than a *physically* equal strain thrown on the arteries. At least, this is so in adult life, and, without going further into details in connec-

tion with the *modus operandi* of the mischief to which we point, it may be permissible to urge that the subject is one to which attention may be usefully directed. The weakly, and those who are not unlikely to have hearts readily overburdened, and blood-vessels easily stretched beyond recovery, or even ruptured, should be warned quite as earnestly against suddenly assuming, or too long retaining, postures which do—however slightly and partially—impede the return of blood through the veins. We know how prolonged sitting may cause the veins of the legs to become distended, and either give way or permit the extravasation of their contents. When this sort of thing happens, even though in comparatively trifling degree, in the case of vessels directly connected with such delicate organs as the eye, the ear, and the brain, it is easy to see that the results may be very serious in their character; and, probably; few postures commonly taken up by persons who lead somewhat sedentary lives are so prone to do mischief unnoticed as that of 'leaning forward' as at work at a table which is not sufficiently high to insure the head being so raised that the veins of the neck may not be in any way compressed or the return of blood from the head embarrassed or delayed. We see reason to believe that if this apparently small matter were more generally understood, there would be fewer head and heart troubles, and we will go so far as to say that some lives now lost would be saved."

AN UNHAPPY MISTAKE.

The *Dublin Medical Press* of August 18th says: An occurrence is reported from Paris as deplorable in its way as any of which we have heard of late. Two children were sent to a hospital suffering from variola, both of whom were called Georges. For obvious reasons the parents were forbidden to see them pending treatment and convalescence. One of the children died soon after admission, and the decease having been duly notified to the parents, the interment was proceeded with. After the lapse of some weeks the parents of the survivor were informed that they could fetch their child,but on a messenger being dispatched for this purpose, the identity was disputed, and after some delay it was discovered that the bed-cards had, by some mishap, been changed, and that the child really belonged to the other parents who had been informed that their infant was dead. It is needless to dwell upon the gravity of such a mistake, which could not fail to have caused great and needless pain to both parents. It is greatly to the credit of the hospital administration that this is really the first time that such a case has presented itself, for the system lays itself open to such errors. It has been suggested that in view of the disfigurement caused by diseases such as variola, it would be eminently desirable to provide each patient with a bracelet duly numbered by means of which the identity might be assured. An unworthy attempt has been made to throw the discredit of this regretable accident on the institution of lay nurses, but it is evidently the fault of the system rather than that of individuals.

WASHING OUT THE STOMACH.

This operation, such a novelty a few years ago, is coming quite in vague in the treatment of certain forms of dyspepsia. The following is the way in which it is carried out: A soft red rubber tube is passed gently down into the stomach, quite to the pylorus; with this tube is connected about a yard of flexible tubing and a glass funnel, which is held on a level with the patient's breast. Tepid water is poured slowly into the funnel until a sensation of fulness is experienced. The funnel is then lowered to the level of the waist, and the fluid allowed to siphon out. The process is repeated until the water returns quite clear.

LITERARY NOTE.

An unusually important work is announced by Cassell & Company. It is "Martin Luther; The Man and His Work," by Peter Bayne, LL. D. Dr. Bayne's sympathy is as great as his literary skill. The men and women of whom he writes are alive. The reader will not only be made acquainted with the facts of Luther's life, but he will follow the events of his career with the vivid realization of a spectator of a powerful drama. One who has seen the early pages, says of this remarkable work that: "it is undoubtedly one of the most comprehensive and accurate personal histories of that great promoter of the general democratic movement of modern times, and also a capital record of the notable chapter in spiritual evolution."

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Original Communications.

THE VIENNA MIXTURE.

BY GEORGE E. ARMSTRONG, M.D.

Professor of Physiology, Faculty of Medicine, University of Bishop's College. Physician to the Western Hospital.

During a visit to the British and European Hospitals, a medical man picks up here and there a great many points which he thinks are of more or less value ; and it often happens, at least in my experience, that some little improvement in some line of treatment or method of procedure, from its great superiority over older ways or means, and from the frequency it is used, affords far greater satisfaction than other points of apparently at any rate at first sight much greater importance.

One day while in Vienna, in July, 1886, my friend, Dr. J. C. Cameron, drew my attention to the advantages of the anæsthetic used by Prof. Billroth and others at the Vienna Krankenhousa. It was a mixture of alcohol one part, ether one part, and chloroform three parts. I admit having had a little prejudice against these mixtures, of which we have had so many ; but from what I saw of this mixture, I thought it worth while to try it. Accordingly, I provided myself with one of Leiter's improved anæsthetic bottles and an inhaler, and on my return home began to use it. I was so much pleased with its action, that since then I have used nothing else.

The mixture is prepared by adding together first the ether sulphuric one part (Squibbs), and then three parts of D. and F. chloroform made from pure alcohol. Some chemical action takes place as heat is produced, then dilute with one part of pure

alcohol. The bottle which I obtained from Leiter consists of an ordinary 4 oz. bottle, of the shape of an Eau-de-Cologne bottle, with a faucet attached to the neck and mouth, so that the flow is started or stopped by simply pushing to the right or left a little button. This arrangement allows a little stream to escape which can be checked instantly. The inhaler consists of a light metallic framework, with a handle and a porous woollen cover which can be easily removed and cleansed. The arches of the inhaler close down, bringing the inhaler into smaller volume for carrying. The advantages which I find this anæsthetic and mode of admin istration to possess are the following :

I. It is, so far as I am aware, perfectly safe. I was told that it was so considered in Vienna, and I have used it almost daily for twelve months, giving it in major and minor operations, sometimes for long intervals of time, an hour or an hour and a half to old and young, in midwifery cases, and in the dentist's chair, and so far have never seen any evidence whatever of any unfavorable action.

II. It is easily administered. The anæsthetizer stands at the head of the patient, allows the inhaler to lie loosely on the patient's face, and *frequently* drops a *small quantity* upon the inhaler without removing it from the patient's face.

III. I cannot say that the patient goes under its influence more rapidly than under the influence of chloroform or ether; but one very important advantage will be noticed, viz.: that there is absolutely no struggling, and seldom much talking. Any one who has struggled a few times with a powerful man, or woman either, half under the influence of ether, will readily appreciate the advantage of an anæsthetic, which invariably produces its effect without any struggling whatever.

IV. Another important advantage it possesses is that there is seldom any vomiting or retching during or after its administration. This is particularly appreciated after abdominal sections, although retching and vomiting are at any time sufficiently objectionable, for more reasons than one, to be avoided whenever possible.

V. The patient comes rapidly from under its influence, as soon as its exhibition is stopped.

VI. Among its lesser advantages, may be mentioned the absence of smell to such an extent, that it will scarcely be noticeable in a room half an hour after its administration has ceased.

VII. The patient is not saturated with it, does not retain the odour and taste of it as of ether.

VIII. It does not produce any bronchial irritation with frothy mucous collections, always an important condition to avoid, and especially so in operations upon the air passages, as for instance in tracheotomy for croup and diphtheria. I believe many fatal issues after this operation are at any rate partly due to the irritating properties of ether, on the trachial and bronchial mucous membranes, putting them in a favorable condition to receive and retain the germs of the disease, carried down during the respiratory efforts.

IX. So far as I have been able to observe, it is unirritating to the kidneys.

X. Is very easily carried, takes up but little room in pocket or medicine case.

XI. A very small quantity is used. The other day in the Western hospital, a woman was kept under its influence 40 minutes, during the exploration and drainage of an abscess of the broad ligament, and only one fluid once was used.

Now I have said nothing in praise of this mixture, which I think will not be found true by all those who will use it, and I would urge strongly a trial of it by one and all. For some years I have been thoroughly dissatisfied with ether. It is very disagreeable—it permeates and renders unpleasant a room for hours after its use, and it is only too often followed by nausea and vomiting; and in my experience these unpleasant symptoms follow its use in a large percentage of cases, even when its administration has been preceded and followed up by the most careful and approved methods of preparation and after treatment of the patient.

Chloroform pure is more pleasant; but being more powerful, and thereby necessitating more careful and skillful use, has been followed too frequently by fatal results. It differs from ether also in this respect, that when it kills it kills at once; and when ether kills, the fatal result is delayed several days or weeks, death finally resulting from lung or kidney trouble.

One more point I should like to mention, that is that whatever anæsthetic is used, do not under

any circumstances begin operating until the patient is thoroughly anæsthetized. The importance of this was pointed out to me by one of our leading Montreal dentists. He insisted that in all the cases of death from chloroform in dentists' chairs, that he had been able to investigate, the chloroformist had only partially anæsthetized the patient. Just given enough to *deaden the pain a little*.

Now in the *American Journal of the Medical Sciences*, April, 1887, p. 444, is an article from Professor H. P. Bowditch of Harvard University, entitled The Action of Sulphuric Ether on the Peripheral Nervous System. In this article it is experimentally proved, that irritation of the recurrent laryngeal nerve in dogs *partially* under the influence of ether, produces constriction of the glottis, but irritation of the same nerve when the dog is completely anæsthetized causes dilatation of the glottis.

The observations of Perkins were also in the main confirmed, *i.e.* "there was found to be a stage in the paralyzing action of the drug when stimulation of the nerve caused the leg to assume a position contrary to that occasioned by the same degree of stimulation without ether."

Here is experimental proof of a fact, and that a fact of vital importance to all using anæsthetics, which had already been observed by a practical man, viz.: *Never begin operating until the patient is completely anæsthetized.*

DIET IN SKIN DISEASES.

By J. Leslie Foley, M.D., L.R.C.P., London.

Within the last decade, diet, in reference to the etiology and treatment of disease, has become an element of considerable weight. So much so, that the scale of medical opinion has shot far up in the high numbers. And well it might. Food is a great factor in health and disease. It has made and unmade nations. Witness the decline and fall of the Roman Empire through gourmandizing; and one small article, tea, which although it cannot be strictly classed as a food, is seldom left out in a lady's grocery list, has been the means of founding the greatest republic of modern times. While food has been a power in making and breaking civil constitutions, it has been equally powerful in making and breaking corporeal constitutions. A good dinner is a potential factor in the wise stateman's, the wily politician's, and the shrewd business man's repertoire. In fact, it might almost be said that a country is ruled "over the walnuts and wine." And why? Because from time immemorial humanity has been partial to its palate. One would think that the gustatory and glossopharyngeal nerves would be well nigh degenerated, so often are they stimulated by savory morsels. In patriarchal days, they used to kill the fattedcalf and make merry, and the principle has been carried out through successive ages to the present day, culminating in the modern "dinner party," the prototype of the fatted calf of yore. Cooking has become a fine art, and such perfection has it reached, so tempting, so luscious are the delicacies it produces, that it is enough to make Epicurus turn in his grave. No wonder the patient frequently uses a big, big D. at the doctor, and goes ahead, regardless of all dietetic rules. Food is the fuel which replenishes the furnace of our body, which sets the locomotive going along the multifarious routes of Life's Railroad; unhappily, it often sets the locomotive off the track. Tyndall says, "the growth of knowledge is from vagueness to precision." No doubt ere long we shall reach precision in dietetics. But there are still many knotty points to be solved, many wrangling facts, and the scientific mind ever hungering, like Oliver Twist, asks for more—knowledge. The energy which food develops in forming a muscle, a healthy brain, etc., expends itself equally in deranging or disorganizing a stomach, liver or kidney. As there is no portion of the body but what may feel its beneficial influence so there is no part which may not be visited by its dire effects. But, verily, as one enters a restaurant, casts the eye over the inviting bill of fare, observes the coaxing dishes, smells the saliva exciting odors, it is sad to think, that, commingling with the jovial conversation and good natured smiles of the bon vivants, is the harassing thought, as we trace the food from the first digestive process prehension, to the final act of defecation, with all the intervening tions, what evil may it do, are we sewing the seeds of a dyspepsia, or is there perhaps looming in the distance a Bright's disease, skin disease, etc.? The waiter breaks the reverie, and decides it "Next order, Sir."

Food is potent for fair or ill in skin diseases no less than in other affections. Let us first look at the bright side, that we may be the better able to bear the more shady.

A well regulated diet is a strong item in the treatment of a skin disease. This most will allow. While all in general are in accord as to the value

of diet, there is considerable divergence of opinion as to the most suitable. Which shall we elect, a meat diet, a vegetable diet, or a mixed diet? This dissonance of sentiment is not confined solely as to the kind of diet; some rank diet above medicines, while others do not consider it worthy of a thought. A moderate meat diet is good, but there is a tendency to take it in excess, far more meat being consumed than is of benefit. This applies more especially to the well-to-do class, meat being a luxury with the poor. In excess, meat is apt to develop the uric acid or gouty diathesis; and as is well known, gout is a factor in producing psoriasis, etc. Meat once a day will suffice in most cases. Those taking little exercise require but a small amount of meat, while the active need more. It is asserted that a meat diet causes congestion of the skin, while a vegetable diminishes the congestion. A priori we should exclude a meat diet in all inflammatory affections and substitute a vegetable diet. The fact that when vegetables are withheld, a change is produced in the condition of the blood and scurvy induced, shows that they supply a want to the system. Perhaps no one more appreciates this than does the sailor after a long voyage. Although plentifully supplied with lime juice, he longs for the sight of a fresh vegetable, and on landing highly relishes them. A due proportion of vegetable is necessary to health. Physiologists have long taught that of all diets a mixed one is the best. To adopt, therefore, an exclusive line of diet as a meat or vegetable would be against all physiological rule. It would be impossible to enjoin a diet that would suit all cases. Nor can we as in diabetes lay down a hard and fast diet, and say, "thus far shalt thou go and no farther." Man is a composite being, made up of innumerable ingredients; his tastes are as numerous and variable. What would be agreeable to one, both as to health and taste, would be disagreeable to another. The dietary of the world proves this. Every nation and frequently every individual in a nation having a peculiar diet. Thus we have the rice-eating Hindoo and Chinese, the fish-eating Esquimaux, the beef-eating Britons, the porridge-eating Scotchmen, etc., while each nation has some characteristic food on which it mainly subsists; it would be interesting to inquire what influence it has upon skin diseases. Take for instance the character of the skin diseases as seen in London and Vienna, there is a marked difference in the two types. It seems to me that diet has much to do with it. The Blackfriars Skin Hospital, London, have long had in use a diet table which has proved of most service in the majority of cases in attendance. As the Blackfriars is the oldest and largest skin hospital in London, it deserves a careful study. It consists of—for *Breakfast*, bread and milk or porridge with or without an egg; bread and butter. Tea and coffee prohibited. *Dinner*—plain roast or boiled fish or poultry, plainly cooked rice, eggs, or flour pudding, potatoes, and a few other vegetables. *Tea or Supper*—milk and water, or gruel, or other farinaceous food with bread and butter. *Drinks*—Barley water, toast water, thin gruel, soda water. *To be avoided*—Salt meats, soups, sweets, acids, fruits, pastry. No malt liquors, wine or spirits, unless under medical sanction. The above menu would not be very congenial or recherché to an alderman. It is certainly puritanical in its plainness.

Tea contains nearly 18 per cent. of tannin, its astringent properties produce constipation; it likewise has an evil influence over the nervous system, and tends to give rise to neuroses of the skin. Coffee is less open to the objections of Tea. Condiments and spices as a rule should be avoided. Milk is not always the harmless thing imagined. It should be boiled. It often disagrees with people advanced in years, causing oppression at the stomach, and often lingers in the bowels as hard cheesy lumps. Sometimes it does not suit those in the prime of life, or even children. It should be of the very best quality. Water should be taken sparingly during meals, freely in the intervals. Drinking cold water when fatigued or over-heated by great exertion has caused a permanent skin eruption. Alcohol has a tendency to keep up skin affections. Besides its deleterious effect upon the skin, it acts indirectly on it by crippling the stomach, liver or kidney; and yet alcohol preserves the skin. The lighter wines, claret, &c., can be used with impunity; while spirits should not be used, whiskey and gin are the least harmful of all. Malt liquors make the skin muddy, thick and pimply. Excessive beer drinking often brings on an eczema. Food which has a tendency to constipate should be avoided as far as possible.

To maintain a healthy skin, the frame should be well nourished; if it is thus in health, how much more so should it be in disease. It is a mistake, as a rule, to put a patient on a low diet in a skin disease. The skin should be well fed. Diet should be of good quality and nourishing; it is quality not quantity that tells. But then again it should not be too rich or stimulating. A dog fed on too

rich a diet will suffer from skin disease. This is known to every veternary surgeon. The late lamented Dr. Austin Flint, in his usual weighty way, has said, "diet should be regulated by the appetite, the palate and by common sense." Dr. T. Lauder Brunton says, "it is much simpler to say what the patient may not eat than what he may." Each climate necessitates its own diet. As far as possible, it is better to keep as near the diet a patient has been accustomed to. These three axioms, potent in general dietetics, apply with equal force to the skin.

> Food should be taken simple plain,
> From excess in eating refrain,
> A regular meal hour obtain.

They convey more reason than rhyme. A change of diet is frequently of benefit.

Many cutaneous eruptions are entirely produced by a diet too large in quantity or too stimulating A skin can be overtaxed just as a stomach or brain. It is related that a lady, who was troubled with an irritable eruption, always suffered a relapse when she took more than three ounces of solid food. The skin acts as a drain to superfluous nutritive particles taken in excess by man, as meat and drink. Were it not for this compensating power, drunkards and gastronomics would quickly perish. Vigorous exercise in the open air requires larger quantities of food of a solid character. The horse when wild can subsist easily on grass, but when hard worked requires corn in proportion. Those of sanguine temperament do not need as rich and stimulating diet as do the feeble. Excessive eating produces plethora. The vascular system becomes engorged. That portion of the skin we call the corium is exceedingly vascular; running throughout it are innumerable trunk-like and capillary blood-vessels. Towards the papillary layer is a delicate and highly organized plexus of capillaries affording abundant blood supply. The skin acts as an equalizer of the circulation at the surface. It becomes hyperæmic pari passu with the general system. While excessive dieting is injurious in all skin affections, it is more especially so in those connected with the vascular system.

A skin disease may be produced by too little food as well as by an excessive quantity. It is among the denizens of the poorest parts of a city, where squalor abounds, that the worst cases of skin disease are most rife. Of course, uncleanliness and bad hygienic conditions are dominant in their causation; but insufficient food is the ruling source in the majority of cases. Where the food supply is reduced to its minimum, we have as a consequence a poor condition of the blood (lack of red corpuscles, etc.) and malnutrition. These are the most favorable for the development of a skin disease. I doubt not but what many of the parasitical affections are greatly aided if not induced by a starvation diet. It offers a likely nidus for them. We know that Bacilli are partial to certain tissues outside of which they do not flourish. Healthy, well nourished tissues they cannot live in, it is only in the badly nourished where they reside. And so it is, I take it, with skin diseases. By producing a healthy tissue we can ameliorate the disease. Parasites love dirt and decomposing tissues. Where healthy tissue is these conditions do not obtain. Ergo no parasite. Good, nourishing food is the best means by which we can procure a healthy tissue or nutrition. The late Sir Erasmus Wilson, in his more advanced years, did not believe that there were any parasites at all; and taught that the small cells—sporates, bacteria, etc., were but altered forms of cell growth such as we find in epithelioma, etc., and not extraneous products from without. His treatment was chiefly constitutional, good food being his mainstay.

Malnutrition is at the bottom of a great many skin diseases. If we could but devise some means by which the poorer classes could be supplied with wholesome food, undoubtedly there would be a great falling off in the statistics of the skin departments of the various hospitals and dispensaries, and we would get far better results than from any lotion or potion. We give tonics to procure an appetite; but among the poor, it is not so much the appetite that is wanting, as something to gratify it.

Although it may not be considered germane to introduce the subject of exercise, it has a beneficial influence on the skin, especially riding, boating, bicycling, etc., but I doubt whether taking long walks is not more hurtful than otherwise. Riding, boating, bicycling, notably riding, keeps the liver and digestive organs in good condition.

While all skin affections are benefitted or modified by diet, it should be especially directed in the following: In the *Hæmorrhagiæ, Purpura*, etc., it should receive careful attention, nourishing with as much variety as possible. In *Miliaria*, plain. *Pemphigus*—of best quality. Full animal diet, eggs, milk and cream, wine in proper quantity allowed. *Lichen Ruber*—Best of food given. *Pityriasis*—Most nutritive articles. *Acne*—Special stress laid on diet, heavy and indigestible food,

cheese, pastry, pickles, spices, stimulative drinks interdicted. *Acne Rosacea*—Alcoholic drinks proscribed, and a plain diet prescribed. *Ecthyma*—Wholesome and nutritive, including meat, eggs, milk, and all articles which tone up the system. *Psoriasis*—Modified by diet. Dr. Passavant, of Frankfort, Germany, has reported a case cured by an exclusive animal diet. *Furunculus*—Generous diet. In broken down cases malt liquors and wine useful. *Anthrax*—Nourishing diet, milk, eggs, whiskey, wine. *Lupus Vulgaris*—Nutritious food, meat, eggs, milk, etc. *Scrofuloderma*—A most generous and nutritious diet, consisting largely of animal food. *Lepra*—Nourishing diet. *Syphiloderma*—Nutritious diet, milk, meat, eggs, wine allowed. *Eczema*—If full habit plain diet, if there is any disturbance of the digestive tract, cakes, sauces, pastry, pork, cabbage, pickles, cheese, beer, wine, etc., interdicted. *Urticaria*—Diet simple without stimulating food and drinks, food nourishing but plain. *Erythema Nodosa*—Diet simple. *Erythema Multiforma*—Light diet, all stimulating articles of food and drink avoided. *Seborrhœa*—Food nourishing and of the best.

In many instances a skin eruption is but an outward expression of some inward trouble ; one is too apt to forget this, and in treatment to invariably associate it with an ointment. Some highly prized unguentum is applied externally, perchance culled from the clinique of some famous dermatologist. But oftentimes the casus belli is inwardly ; it may be some irritating article of food, etc., inflaming and deranging the bowels with their contiguous helpmates, liver, spleen, etc.; here some internal emollient or corrective would be more useful.

Disorders of the digestive tract (from mouth to anus) are paramount in producing many affections of the dermis. We have but to take up any text-book on dermatology to verify this. Under its labored and memory-burdening nosology there is scarcely a disease but what disturbances of the alimentary canal, caused by food in excess, in too small quantity or of bad quality, plays some part in its etiology, and the role is by no means a secondary one.

Among other skin diseases induced by improper diet, may be enumerated, Furunculus, Anthrax, Acne, Rosacea (spirituous liquors), Psoiasis (modified), Lichen Ruber (according to Sir Erasmus Wilson). Eczema, Urticaria—Overloaded stomach, excess in wines or highly seasoned food may produce it, certain articles are especially liable to give rise to it, such as fish, oysters, clams, crabs, pork, sausages, oatmeal, mushrooms, raspberries, strawberries, etc. Dr. Brunton relates a case where a single strawberry produced an intense urticaria. Severe dyspepsia may cause miliaria.

While disorders of digestion affect the skin, cutaneous eruptions are equally deleterious to the alimentary canal, the skin is in close relation to the digestive tract, the vaso motor nerves being the connecting link. The bowels absorb the food we eat, and we know the skin is capable of absorbing food by inunction. A healthy skin promotes reflexly the vaso motor circulation of the different viscera. Trainers have long known the benefit of keeping the skin in good condition, the rub down being part of the course. Possibly in the near future we may class as an etiological factor in the skin domain the rank Ptomaine.

The skin is in sympathy with every organ of the body, likewise there are few organs but what have some effect upon the skin. Its Pacinian corpuscles are the touchstones of the internal organs, connecting, as it were, the inner with the outer world. Contact with these small bodies sets the whole nervous system agog, and communicates the sensation to that highest consummation of the nerve centre, the brain.

A noted scientist has said : " You cannot study a snow-flake profoundly without being led step by step to the constitution of the sun. It is thus throughout nature, all its parts are inter-dependent, and the study of any one part completely would really involve the study of all." It is so in medicine, as Pope puts it " all are but parts of one stupendous whole." All knowledge, therefore, pertaining to diet and the digestive tract has its bearing upon the skin. Dyspepsia and dieting have long been synonymous ; and I take it, in process of time, the same will be said of skin diseases, and he who treats cutaneous affections, especially in regard to diet, from the broad view of general medicine, will, I venture to say, be more successful in the long run, than he who confines himself to one narrow groove.

22 Dartmouth Street.

Boston, Sept. 1st, 1887.

ON THE TREATMENT OF FIBROID TUMOURS OF THE UTERUS BY ELECTRICITY; WITH OBSERVATIONS AND COMPLETE STATISTICS OF ALL THE CASES SO TREATED FROM JULY 1882, TO JULY, 1887.

By Dr. G. Apostoli, Paris

Translation by Wm Wooldham Webb, M. D., M. R. C. P. L.

(*Read at the Medical Association meeting at Dublin*, 1887.)

Gentlemen.—You will permit me to ask of you a temporary suspension of the well merited celebration of the triumph of gynæcological operative surgery, in which you have held so important a position, while I lay before you my views on a point of conservative treatment.

The surgical measures proposed, discussed and put in practice for the removal of uterine tumours have of late years occupied a great share of the attention of practitioners, and yet many of the questions connected with this subject still remain undecided, obscure and perplexing. After all, the dangers of excision are not much less formidable. For this reason I have endeavored to find out a way, neither strictly surgical nor strictly medical, of dealing with these cases, by which I might avoid equally the reproach of surgical insecurity and the defect of therapeutical inefficiency. By this I mean my electrical treatment of uterine fibroids. It is now five years since I adopted a proceeding which I may define as a *galvano-chemical cauterization of the uterus, vaginal, intra-uterine or parenchymatous and always monopolar.*

For those who have not much experience in electrical manipulations, these few simple words require to be made clear and explained. This I will endeavor to do plainly and shortly.

I may first of all point out what my predecessors had done in the electrical cure of fibromes. Assuredly they had used a current of electricity, but all the attempts made were defective in ways that I may thus recapitulate:

The current of electricity was employed:

1st. In a *vague* and *variable* manner. Sometimes there was faradisation, sometimes there were continuous, sometimes interrupted galvanic currents, but always without a definite object. The current was set in motion in ignorance of its intensity, and with imperfect knowledge of the best means of employing it. The proceeding was purely empirical, discrediting a curative agent, capable of doing much good, or none at all, according to the skill and intelligence with which it was directed.

2ndly. Without *dosage*, that is to say, without any instrument, in the form of a galvanometer, which admitted of measuring the force of the current employed, or of repeating it under the same conditions.

3rdly. In a *dose insignificant*, generally so small as to be useless.

4thly. By a method always *extra-uterine*, in no way directly acting upon the uterine cavity, and but slightly upon the neighboring parts of the vagina.

5thly. By a method often *dangerous*, from the galvano-puncture being made above the pubes, and through the abdominal integuments.

With these imperfections and dangers in view, it was in 1882 that I originated a *new and rational* way of using electricity for this purpose. I have since *gone on modifying and improving* my mode of operating and I now propose to give you an account of my method as I practice it at the present time.

I have supplanted the old way of operating by a method which is:

1st. *Precise*—By the introduction of *new galvanometers* of intensity—exact counters and measurers of the electric current. It is in this way only that we can estimate the value of the fluid passed and utilized through the uterine tissues.

2nd. *Energetic*, by an absolutely novel service of *high* intensities of current, which I have progressively carried, according to the necessities of my cases, from 50 to 150 and 250 milliampères.

3rdly. *Tolerable*, in spite of the enormity of these doses, in consequence of the introduction of a new form of electrode, the wetted clay, which renders the cutaneous pole innocuous and permits us to transmit through it easily and without injury a current of signal medical intensity.

4thly. *Better localised*, by a direct application of the active pole, by way of the vagina, to the uterus, either in its cavity, or in the substance of the fibroid deposit.

5thly. *Thoroughly under control*, by the exclusive choice of the unipolar method. In fact, I apply to the diseased uterus a *continuous galvanic current of an intensity and duration sufficient to produce the therapeutic effect required.* Now this application, which is generally inaccurately described as electrolytic, ought to be defined as a *galvano-chemical cauterization*, that is to say, a cauterization purely chemical. In the course of this current through the tissues there are two successive and distinct effects developed:

a. The *tangible* effect, at the points of entry and exit of the current, which, according to the dose and duration, will be a chemical cauterization more or less severe (but not thermic), variable in conformity with the pole, and different in its character at the *positive pole* and at the *negative* pole. This polar action, at the will of the operator, may be either *monopolar* or *bipolar*.

b. The effect resulting from the circulation of the current from one pole to the other, which is therefore called *interpolar* action. This action follows every electrical application and sets up a subsequent process of disintegration, proportionally wide and lasting, of the morbid products through which it is made to pass.

In serving myself to the utmost of the polar and interpolar effects of the electric current for the treatment of fibromes, I adopt always a galvano-caustic, intra-uterine and [illegible]. I thus only use directly one active pole, closing the circuit outside the abdomen by a second pole, made as nearly as possible inert. At the same time, I reckon upon the interpolar effects of the current, as it necessarily finds its way through the entire uterine substance, from the internal pole to the external or cutaneous pole. This, as I have explained elsewhere, is the principal reason why I do not place the two poles in the vagina, and why I advocate the method known as uterine monopolar.

6thly. *More scientifically exact*, from the due appreciation of the topical effects of the two poles, and the precise chemical and anatomical indications peculiar to each of them.

I have been able to demonstrate, in the clearest manner, that we have in our hands a double edged agent, that we can make use of at discretion, to afford us local effects quite different. On the one side, is an *hæmostatic* more or less rapid in its action, and either direct and immediate, or secondary and remote. I allude to the *positive* pole, with which we can arrest hæmorrhage, either instantly, if the cavity of the uterus be of normal dimension, if the action be relatively intense, and if the hæmorrhage be not excessive; or more deliberately and gradually, after several successive operations, by the formation of contractile cicatrices. The various gradations of the narrowing of the uterine canal are the plain evidence of this secondary and prolonged effect of positive cauterization.

The *positive* pole will therefore be the "*medicament par excellence*" in cases of bleeding or *hæmorragic* fibromes.

On the other hand, with the *negative* pole we obtain a state of *temporary congestion*, without *direct* hæmostatic effect. The interstitial circulation of the uterus, thus momentarily stimulated, will be hurried on, and a regression of the non-hæmorrhagic fibromes is the consequence, either of this state of congestion, or of the supplementary artificial and salutary hæmorrahages which take place. The negative pole will therefore be found to render invaluable benefit (though with the positive pole it is possible to arrive at the same point by a way more indirect and tedious), in those cases of fibroids accompanied with *amenorrhœa* and *dysamenorrhœa*, which are only too often the despair both of patients and doctors without such means at command.

Looking therefore at the difficulties and dangers of abdominal surgery, and at the avowed impotency of the greater part of medication in cases of fibromes I do not hesitate to assert for my method of treating them a precedence on the following grounds:

1st. It is *easy* of application; since it only requires an elementary acquaintance with the principles and practice of electro-therapeutics; it being, however, unconditionally understood that a profound knowledge of gynæcological science must be the indispensable prelude to any attempts.

2ndly. It is *simple;* for it is ordinarily nothing more than a skilful, uterine, therapeutical soundage. This is only what may be expected of ever surgeon provided with a good galvanometer of intensity, some sort of battery capable of yielding an adequate current of electricity, an inoffensive cutaneous electrode in wet potter's earth, an inattackable intra utrine electrode in platinum, and a steel trocar for the galvano-punctures.

3rdly. The current its mathematically *dosable;* so that every operator can carry on the treatment under the same conditions and adjust the force of his remedy to the nature of the effects he has to obtain.

4thly. The *seat of operation is optional;* for the surgeon has the power of limiting and defining the point of entrance of the current, making it either the mucous membrane or the tissue of the organ.

5thly. It is of *a y control;* and only utilizes an amount of force, which should cause neither shock nor suffering, and ought never to be put to use but in progressive and adjusted doses.

6thly. It is *antiseptic* in itself, by virtue of the high cauterization of the active pole.

7thly. It is for the most part *easily supported*; anæsthetics being only required for certain cases of galvano-puncture.

8thly. It does not *impose upon the patients any forced seclusion*; and mostly admits of their continuing the usual habits of life, and even of doing hard work, in the intervals between the operations.

9thly. But over and above all these considerations, there is one dominant point to be advanced, which alone is of weight enough to turn the scale in favor of the electrical treatment. The simple chemical cauterization, for which you may find the equivalent in the laboratory of the chemist, or in the actual cautery, is not the only matter we have to take account of. This chemical cauterization—so called polar—is only the first part of the therapeutical scene which gradually unfolds itself.

The electrical current—the power we wield, and the accompaniment of every vital manifestation, in its course through the tissues acts prolongedly and profoundly on every molecule, and thus causes ulterior changes in the tumour structure, which may well astonish both by their extent, safety and certainty.

I regret that I cannot do more on this occasion than roughly outline these questions of prime interest, and I turn at once to the clinical and purely practical results of my treatment.

With this powerful agent, the constant galvanic current of high intensity, of which I have pointed out the tractableness as well as its many advantages, in our hands, let us ask what can it do, and what ought we to be able to do with it, for the relief of the uterine fibroid?

Symptomatically, the fibroids may be divided into two great classes, those which are hæmorrhagic and those which are not so.

The positive pole is the express remedy for the cases attended with *hæmorrhage*, the negative pole when they are *not hæmorrhagic*. Each of the two poles, conveying the current, acts in the first instance locally on that part of the mucous membrane with which it is in contact—the negative pole as producing congestion, the positive pole as hæmostatic. Moreover, if they both in their secondary interstitial action induce a regression of the tumour, I believe that in this respect the greater potency belongs to the negative pole. But beyond this the negative pole has a further faculty. If we make it enter by puncture into the substance of the fibroid deposit, it will more rapidly insure the diminution of the tumour, and what is truly remarkable is, that this negative pole, naturally congestioning, and little if at all hæmostatic, becomes by a sort of *contre-coup* markedly hæmostatic, and will at the end of a certain time, arrest even troublesome hæmorrhages. This staunching effect is due to the cutting off of the supplementary circulation, by the rapid atrophy brought about by the action of the negative current.

As a supplement to the rule which I have just formulated,—pole positive intra-uterine for the restraining of hæmorrhage, pole negative intra-uterine for tumours without hæmorrhage—comes the second indication for *galvano-punctures*. These punctures, as my experience increases, assume daily a more and more preponderating importance in my estimation.

The indications for galvano-puncture are *two-fold*; first, as a matter of *necessity* in consequence of uterine atresia, or where there is such displacement of the organ as to prevent any introduction of a sound; second, by *preference* when we see that we can advantageously combine punctures with intra-uterine cauterization, so as to expedite and make sure of the effects that, with the cauterizations only, we should tardily or perhaps imperfectly realize. We must therefore undertake the galvano-punctures *alone* whenever the case will fairly admit of them, or use them in other cases *as adjuncts* to the intra-uterine cauterizations previously tried.

The manipulations in the operation of galvano-puncture will always be more difficult and even dangerous in incautious hands. I cannot therefore too much insist upon a rigid observance of the directions and precautions I have elsewhere given at length. I can now only offer a very short summary of them.

1st. Absolute and regular *antiseptic* irrigation of the vagina, before and after each operation.

2nd. Use as the puncturing instrument a small steel trocar or needle, and let the punctures be *shallow*, that is, not deeper than from 1 to 2 centimetres.

3rd. Make the punctures on the most prominent part of the fibroid; whenever possible, in the posterior cul-de-sac.

4th. Make the punctures *without speculum*.

Slide the trocar through the celluloid sheath which protects the vagina, after having examined and chosen by touch the point where the puncture is to be made.

5th. Take the precaution of *ascertaining the seat of any pulsation*, so as to avoid wounding an important vessel.

6th. In case of any unusual hæmorrhage, immediately *dilate the vagina* with an expanding speculum, and if necessary put on pressure forceps to the bleeding point.

Such is a rapid sketch of the directions for operation; what now are the anatomical and clinical results to be expected?

A. As regards the *material* changes we may affirm, that every fibroid tumour, submitted to this treatment, sometimes after so short a time as one month, but certainly when the treatment is fully carried out, will undergo a manifest reduction appreciable by the touch, and demonstrable by internal measurement. The further diminution of the tumour which continues for some months, varying in amount from a fifth to one half of the original volume, is generally associated with a coincident and equal accumulation of subcutaneous adipose tissue on the abdominal walls.

The regression of the tumour is not only apparent during the time of active treatment, but goes on continuously after it has been suspended, and is the persistent proof of the enduring influence of the electrical operations.

The liberation of the tumour from its local attachments takes place simultaneously with its decrease of bulk. The tumour which at the commencement of the treatment was immovable can progressively be made more and more to change its position, as the absorption of the enveloping tissues, deposited round it, advances.

Another phenomenon is observed in connection with the regression of the tumour. It not only contracts on itself, but it shows a tendency to separate itself from the uterus, to become more distinctly subperitoneal, to detach its mass, as were, from its setting in the uterine wall, and to remodel itself into a pedunculated form.

B. Clinically.—The results are not less striking. Perhaps they are even more so, as they are not only matter of proof by the examination of the surgeon, but the patient herself is the living exhibition of them. We may generalise the extent and importance of these results by saying, that ninety-five times out of one hundred, they comprise the suppression of all the miseries constituting the fibroidal symptomatology, which may be thus categorically enumerated:—*Hæmorrhages, the troubles of menstruation, dysmenorrhœa, amenorrhœa, nervous disturbances, the direct pains in the growth itself, and from mechanical pressure, and the harassing series of reflex actions.*

In a word, the assertion may be safely advanced that, though our therapeutical resources only carry us so far as the sensible reduction of fibroid tumours, and not to their total absorption, we may, with regard to the symptoms, certainly anticipate their complete removal, and the establishment of a state of health equivalent to a true resurrection. I am justified in saying, that the greater part of women who have persisted in the necessary treatment, not only were cured but remain well.

I use the expression, the *greater part*, because there is no such thing as human infallibility, especially in medicine. I acknowledge having been sometimes unsuccessful, and so instructive are my failures, that I shall recount them at length in a work now preparing. It will be seen that they were cases in which there was no possibility of satisfactory treatment, owing to an apparently absolute intolerance of high intensites of current. I see now that I was wrong in retreating before this supposed intolerance. Among them, were three cases of fibrome with ascites, and I regret now that, with the aid of anæsthetics, I did not persist in going to the limit of my power. I have also met with the same intolerance in some hysterical subjects, in cases of very irritable uterus, and in others of peri-uterine and intestinal phlegmasia. Now, with my present experience, I should not hesitate to operate to the fullest extent with the patient under chloroform. There remains yet the obscure question as to the class of cystic fibromes, and tumours with a tendency to malignant degeneration, where there is often an accompanying fearful and irrepressible hydrorrhœa. I have recorded three such instances, and in them intra-uterine galvano-cautization generally proves useless. Something more is demanded, and we must seek in galvano-punctures means of denutritive action more powerful and more efficacious.

Finally, I may lay down the following proposition. No operator should admit the failure of intra-uterine galvano-cauterization, before having had recourse to the galvano punctures, *which he must enforce either with or without anæsthetics.*

We will now turn aside from all theoretical con-

siderations, and look at the facts. I may rely upon them, with confidence, as my great support. I desire, however, in the first instance, to prove the comparative safety of intra-uterine medication when my method is adopted.

Both in my *clin que*, and in my private consultations as far as regards gynæcological practice, the application of electricity therapeutically assumes two forms. In the one, it is exclusively faradic, in the other galvanic. For the present I pass over faradism, to occupy myself solely with what relates to the patients who have been subject to the treatment by continuous currents.

In the five years, from July, 1882, to July, 1887, I have made, either privately or at the *clinique*, as many as 5201 applications of continuous galvanic currents, for most of the maladies included in the gynæcological nosology; and I may enumerate them in the following order:

1 Fibroids of uterus—polypi;
2 Entire or partial hypertrophies of the uterus;
3 Subinvolutions;
4 Acute and chonic metritis and endometritis;
5 Ulcerations of the neck of the uterus;
6 Peri-uterine inflammations (perimetritis, parametritis, cellulitis, phlegmons);
7 Ovarialgia;
8 Ovaritis and periovaritis;
9 Salpingitis;
10 Ovarian and tubular cysts at an early stage;
11 Atresia;
12 Hæmatocele.

These 5,201 operations were thus partitioned:

I. At my clinique, 2,837.

a. 1,524 galvano cauterizations, chemical, positives intra-uterine.
b. 745 galvano cautizations chemical, negative, intra-urine.
c. 368 galvano punctures, chemical, negative, vaginal.
d. 200 cauterizations, galvano, chemical, of neck of uterus.

II. In my private practice, 2,364.

a. 1,245 galvano cauterzations, chemical, positive, intra uterine.
b. 1,027 galvano cauterizations, chemical, negative, intra-uterine.
c. 72 galvano punctures, chemical, negative, vaginal.
d. 20 galvano cauterizations, chemical, of neck of uterus,

These 5,201 operations, which range over a space of five years, were made upon 403 patients, who went through the treatment more or less systematically. And I must not omit to mention that I intentionally say nothing about the number, far in excess of the above, who were merely the subjects of faradism, as I have the intention of publishing a separate memoir on that subject.

Now in referring to the history of these 403 patients (276 at the clinique, 127 private), the number of whom, for the time occupied, may really be considered as great, I have only to deplore the loss of two. Of these two deaths I take upon myself the entire responsibility. My method was not in fault. I only was to blame, as may be seen by the full and detailed report.

In one case, I admit candidly that there was a fatal error in my diagnosis. I did not recognise the presence of a suppurating ovarian cyst, which ended in death from peritonitis. Death was due, in the second case, to a puncture made too deeply. The consequence was intra-peritoneal gangrene, for which the abdomen was not opened.

In addition, I have to confess to having either excited or aggravated, in the course of the five years, ten peri-uterine phlegmonous inflammations. These must be attributed to blunders in carrying out the treatment, as will be shown when the account is published at length.

But these errors of practice happened during the early days of my work, and were either:

a. Negligence of antiseptic measures, which were either omitted altogether or done imperfectly; or,

b. The too violent, or too intense, use of the negative pole, in cases of subacute peri-uterine inflammations.

The fact is, that the negative pole, having a strong power of producing congestion, is a dangerous weapon, which at the beginning of any treatment must be brought to bear with great prudence and reserve, if one would avoid overshooting to mark for which it is intended.

To lay before you the facts of these accidents will serve the double purpose of warning you of what may befall you, and of preventing you from falling into similar errors. My caution is, that whenever the negative pole is put in use, and there is any trace of peri-uterine inflammation present, you must not only redouble your antiseptic heedfulness, but your operative proceedings must be carried on with deliberate carefulness. You must

feel your way, testing the susceptibility you have to work upon by two or three preliminary operations, in which you give doses so feeble that they only serve to enlighten you, and to habituate the patient, so as lead on safely to the use of higher intensities.

But when I tell you that this operative gynæcolgy, as I have to practise is carried on in such exceptional circumstances that no one else has ventured to encounter them, and upon a class of women who are obliged to walk home shortly after they get up from the couch, who seldon take the necessary rest in bed, who are in no way under my surveillance, and whose poverty forces them in some fashion to get through all the ordinary duties of life, you will be curious to know, and you will ask of me, what is the explanation of this illusive mystery. All that that I can say is,—it appears to me that the intra-uterine current, at the high propertions I trust to, seems to have in itself some special antiseptic and atrophic property.

I must close these remarks on the failures, which I have no wish to conceal,but which I now expose to you in all their nakedness, though they so stand as the evidence of only the usual difficulties which accompany the laborious and misty development of any new method of treatment, without speaking of other dangers which lie in the way, such as the possibility of concealed pregnancy, and accidental abortion, and also the risk of opening up a vesico-vaginal fistula. I have already enlarged on this matter elsewhere, and in my next work, on gynæcological electrical therapeutics, I shall devote a chapter to the consideration of the needful precautions.

I am anxious to-day, as the completion of my paper, to put forward a simple statistical statement of what has been my treatment of uterine fibroids.

From July, 1882 to July, 1887, I have had under my care 278 patients with fibromes or hypetrophy of the uterus in some manifest degree, upon whom I have used 4,246 applications of the continued current of electricity. The patients and the operations may be thus classified:

I. Clinique 186 patients, and 2,347 operations.

a 1433 galvano cauterizations, positive, intra-uterine.

b 593 galvano cauterizations, negative, intra uterine.

c. 321 galvano punctures, negative, vaginal.

II. Private, 92 patients, and 1,899 operations.

a. 1,085 galvano cauterizations, positive, intra-uterine.

b. 746 galvano cauterizations, negative, intra-uterine.

c. 68 galvano punctures, negative vaginal.

As I said before, I do not wish to convey the impression that all these patients have been cured. It is not so, for the very good reason, that some of them, especially those of the *clinique*, have not persevered to the end, attendance having been discontinued as soon as the first feelings of amendment have been experienced. But I can affirm that when there has been no negligence, and my advice has been fully acted upon, 95 times out of 100, permanent benefit has been acknowledged. I may also predict that if adopted in its integrity, and worked as it ought to be, the mortality from my treatment will henceforward be nothing. I cannot, however, omit to report a fact which gives occasion for melancholy comparison.

Among the patients who had not the will to let me finish what I had begun, and whose impatience led them voluntarily to seek the removal of their tumours by excision, seven put themselves into the hands of six of our most eminent surgeons, and not one of the seven recovered from the operation. Commentary on this would be superfluous.

One word in parting. Men and their labors can, in general, only find their proper level and value through the esteem of their associates, and the way in which what they have done is publicly accepted. Now, I feel it pressing upon me as a duty to acknowledge, that if the method about which I have been addressing you ever meets with the confidence of the profession (to speak only of England) it will be mainly due to your illustrious countryman Sir Spencer Wells, who was one of the first to extend to me the benefit of his experience and authority, and to his learned friend Dr. Woodham Webb, whose name will ever de coupled with its introduction and diffusion. It would be injustice were I not also to refer to the honor such distinguished gynæcologists, as Keith, father and son, Playfair, Savage, Elder and others have done me by their visits, and to the encouragement they have given me by their approbation.

I cordially thank all who are present, and I assure you that the best recompense of the work of my life will be to find many of you becoming my followers.

Society Proceedings.

MEDICO CHIRURGICAL SOCIETY OF MONTREAL.

Stated Meeting, May 13th, 1887.

J. C. CAMERON, M.D., PRESIDENT, IN THE CHAIR.

Pathological Specimens.—Dr. JOHNSTON exhibited specimens from a case of *perityphlitis* in a girl aged 12. There was no lesion found in the brain.

Dr. BLACKADER said that he had been called in consultation in the case. The girl complained of pain in the back, right iliac region, and down the right leg. A week before, the attack had set in with vomiting and abdominal pain when the mother had given a purgative. There was no marked rise of temperature (101-102), and the pulse never was high. Abdomen was tender and tympanitic. The child had been brought to him formerly for convulsions, which set in first on right side, then becoming general, lasting about twenty minutes. He had been able, also, to elicit clonic movements of that side, first of the arm, then of the right leg, but they did not become general. These nervous symptoms yielded to arsenic, and her general health was good. The convulsions, however, continued up to three o'clock of the day previous to death.

Dr. JOHNSTON exhibited specimens of *tubercle of the trachea* from a case of general tuberculosis, in which several of the rings were exposed from ulceration of the posterior surface. He also exhibited the *sternum and ribs* from a case of *rickets* in which the *Rachitic Rosary* was well shown from the inside, but not externally.

A Rare Form of Epilepsy.—Dr. WOOD then read the following paper on a rare form of epilepsy, and exhibited the patient:

Some years ago, Dr. William Osler read a paper in this room, in which he spoke of a case of Jacksonian epilepsy. He was fortunate enough to be able to show the brain of the subject and the cortical growth (a small glioma) which gave rise to the epileptiform seizures. I am unable to demonstrate the actual existence of any disease within or about the motor zone of the patient about which I am going to speak, because he is still alive; but I thought it might be interesting to introduce for discussion here by detailing such a case, the whole subject of false (non-hysterical) epilepsy. The subject of epileptic auræ and the modes of onset in epilepsy has always been an attractive one to me, and I would like to hear from members of this Society in this connection.

Until eighteen months ago, the patient, E. B., aged 70, was in fair health. Had never had syphilis, but now suffers and has suffered at times for many years from rheumatic gout, the great toe of right foot being the chief seat of the trouble. Has occasionally had pains (which were set down as rheumatism) in several other joints of his body, but has never been laid up with them. Has never suffered from persistent headache; never had any injury to his head, and his intellectual faculties are well preserved. There is no history of family neuroses. His digestion is fair, and his heart and kidneys are in normal condition. He had his first attack eighteen months ago, and the half dozen attacks which he has had since then are similar to that one, only they seem to getting worse. He first noticed twitchings of the muscles of the left forearm and face; these twitchings increased in violence, and although he made efforts to control them, they went on getting worse. He then began to experience feelings of fear as of impending danger, and in about a quarter of an hour after the first muscular contraction, he thinks he became unconscious for a few moments, but is not certain of it. In half an hour the whole attack was over, and with the exception of a feeling of weakness in the arm, he was all right again. He has had since then, but at no regular interval, some half-dozen attacks, varying little in character from the first one. Nearly every attack has been witnessed by his fellow workmen or his wife, and I have been able to get a pretty fair account of them. The loss of consciousness lasts but a few moments. Sometimes he has had what he calls double attacks; that is, he will have a second attack a few minutes after the first, which is not as severe at the first, and is not accompanied by unconsciousness. He knows when he is going to have an attack, and will grasp his left wrist in his right hand, and do his best to prevent the spasm from getting worse or from attacking his face. I saw the latter half of one of these attacks, which he declares he can bring on at will, or rather (because the man suffers much from the dread of approaching danger which accompanies the attack) he thinks that when he has a second attack it is due to putting the arm or his body in some uncomfortable position. I was talking to him one day (having reached the house

shortly after a seizure) when he said, "There, I am going to have another attack." He grasped his left wrist firmly, but jerking began in the arm, the muscles of the upper arm being most affected. This was shortly followed by twitching in the other muscles of the arm, all growing worse, until the forearm became flexed upon the upper arm; then the muscles of the face began to twitch, and both sides seemed affected just as in true epilepsy. The man meantime made violent efforts to control the spasms, and called to his wife to prevent the flexion of the forearm. She succeeded in straightening it with some difficulty. In five minutes the attack was over, and I am unable to say whether he was unconscious or not. For several days afterwards he complained of weakness in the affected arm. The spasm in this instance and in every other attack was distinctly confined to the left arm and face, beginning first in the arm and extending to the facial muscles. Without the dynamometer test, the grasp of the left hand, several days after an attack, appears to be as firm as that of the right. I do not know why it should be so, but the patellar tendon reflex is wanting in the left leg, and is faint on the right side. The only doubt, it appears to me, in the diagnosis of this case as one of Jacksonian epilepsy, or, in other words, of disease affecting the face and arm centres about the fissure of Rolando, is that matter of loss of consciousness. It seems to me, however, that the clonic muscular contractions, confined to such related groups of muscles as those of the arm and face—the gradual onset—the loss of consciousness, if at all, but very slight, and coming on near the end of the attack, after the patient has been able to make vain, but intelligent, efforts to prevent the involvement of the other arm and facial muscles—the absence of any history of his falling down,—all these point to a local brain lesion and not to true epilepsy. There was no paralysis in this case, nor any tonic contractions of the muscles, although the patient complains of weakness in the arm for a day or two after an attack. One must conclude that there is no actual destruction of the cortex within the motor area, but that some growth or induration in a situation outside of it irritates, upon occasions, the centres that preside over the face and arm muscles. In Dr. Osler's case, there was a long-standing contraction of the right foot.

Regarding the treatment of this case, he has been taking, for several months, 5 grs. of potassic iodide, 10 grs. of potassic bromide, and 15 grs. of potassic bicarbonate, three times a day, on alternate days, and so far he has been free from attacks. I am watching the case and awaiting developments. Thinking, for obvious reasons, that it was advisable to have his eyes examined, I sent him to Dr. Proudfoot, and I conclude with his report:

"I send you the following notes of E. B.'s case. I am sorry he could not come to see me again, as I wished to examine his colour perception and visual powers, which I could not do before. At the time I examined him, I found the humors of the eye perfectly transparent and nothing abnormal, with the exception of the 'disc,' which was somewhat grayish in colour, and there were two or three small collections of pigment at the upper and outer margin, and a narrow atrophic ring extending round the lower and inner third, with a slight depression of the vessels in that region. There was no hyperæmia or other evidence of any very recent trouble, and the patient informed me that his sight was as good then as it had been for some time back."

Discussion.—Dr. BULLER said that there were many well-established cases where epileptic attacks, were caused by the irritation produced by a shrunken eye-ball. This is especially the case where the choroid coat is undergoing inflammatory changes resulting in the formation of bone. He then called the attention of the Society to the condition of the patient's eye, in which the osseous deposit was perceptible, and said that the irritation produced by the pressure of this hard ring on the ciliary nerves was sufficient to set up sympathetic changes, and perhaps to account for the epilepsy.

Dr. STEWART said the case was evidently one of cortical epilepsy. General epilepsy might be traced to such a source as irritation of the ciliary nerves, but he did not understand how it could produce one-sided epilepsy.

Dr. TRENHOLME thought Dr. Buller's views were very important; slight but continuous irritation of sensitive nerves is apt to set up epileptic attacks. He throught enucleation of the eye might be performed with benefit.

Dr. BULLER, in answer to a question from the President, said that if the attacks recurred he would recommend removal of the eye.

Stated Meeting, May 27th, 1887.

J. C. CAMERON, M.D., PRESIDENT, IN THE CHAIR.

PATHOLOGICAL SPECIMENS.

Ulcerative Endocarditis.—Dr. ROWELL exhibited specimens from a case of ulcerative endocarditis.

Bright's Disease.—Dr. R. L. MACDONNELL exhibited the heart and kidneys from a case of Bright's Disease.

Albuminuric Retinitis.—Dr. BULLER shewed one of the retinæ from the above case. The patient had first applied to the ophthalmic clinic on account of loss of sight, about two weeks before her death; could then count fingers at a distance of a few feet. Pupils were dilated; ophthalmoscope shewed extensive outbreak of patches of infiltration near macula. Recommended patient to enter hospital for her renal disease. At the autopsy, besides the infiltration of retina, several small hemorrhages and some accumulations of pigment were detected. It was a good example of albuminuric retinitis in a late stage.

Cancerous Angioma.—Dr. FENWICK shewed a small tumor removed from the neck of a girl aged 21. When first noticed two years before was about the size of a pea. Local applications had no effect. On removal, was the size of an egg, encapsulated, situated just behind angle of jaw, and apparently very vascular. Patient had an attack of cynanche four months before the tissue growth was first noticed.

Dr. JOHNSTON stated that the growth was a cancerous angioma, and exhibited a microscopic section. He thought this was of interest, because in this region remnants of the brochæ would exist.

Dr. HINGSTON considered the attack of tonsillitis as merely a coincidence.

Depressed Fracture of the Skull.—Dr. FENWICK shewed a specimen of depressed fracture of skull. Patient, aged 25, was admitted into hospital April 3rd, 1887, in an unconscious state, supposed to have been injured by putting his head through a window of railway car and striking abutment of bridge. Scalp wound over three inches in left parietal region; beneath this a depressed comminuted fracture was noticed. Ecchymosis of left eyelid and conjunctiva. A little bloody serum oozing from left ear. Wound dressed with iodoform, and patient given bromide of potash.

April 15th.—Some small pieces of loose bone removed from wound, leaving an opening in skull 2½ by 1 inch. Dura mater slit up for about an inch, evacuating a quantity of fœtid pus from an abscess in cerebral cortex. Discharge from ear has become purulent. Drainage-tube inserted and wound closed.

April 18th.—Temperature rising for several days: to-day 103.5°. Died at 8 p.m.

Head examined by Dr. Johnston 75 hours after death.—The wound above described was found bathed in pus. On removing stitches where the depressed internal table of parietal bone is exposed diploe has a granulating surface. The incision in dura mater had not united. Line of fracture extends downwards through petrous bone, which is splintered into many little pieces, thence across the lesser sphenoid wing and in front of the anterior clinoid process to the right orbital plate. In the left temporal fossa were two drachms of pus between dura and bone; a good deal of blood extravasated in this neighborhood. Pia mater, in this region and at the base, normal. In the cerebral cortex an abscess the size of a hazel-nut was found just beneath the supra-marginal convolution, which presented a small superficial slough. The abscess did not extend quite as deep as the roof of the left lateral ventricle. On sawing open tympanum, the cavity was found full of pus. The mastoid cells contained a little pus.

Dr. FENWICK stated that he had put a stitch in the incised dura; would not do so again in a similar case.

Dr. BULLER had seen a case some years ago; patient had been run over by a cart-wheel, by which petrous bone was fractured and several ounces of brain matter escaped through the ear. The patient recovered. Drum membrana was defective in upper and anterior part, and there was a marked deformity in meatus.

Dr. FENWICK, in reply to a question by Dr. Buller, did not consider ecchymosis of conjunctiva pathognomonic of fracture of ethmoid bone. Thought tearing of small vessel in sphenoidal fissure might cause it in absence of any fracture of ethmoid, and cited cases where the ethmoid was fractured this sign was absent.

Dr. RODDICK asked (1) if he would have opened the skull below the temporal fossa if he had known the state of damage? (No.) (2) If he would have operated in the same manner again?

Dr. FENWICK said that he would, citing Bank's case where skull was drained and sinus had dried up.

Extirpation of the Uterus.—Dr. Wm. Gardner exhibited a uterus removed by the vaginal method for cancer, and related the case. A lady of 57 had consulted him a few months ago for continuous, slightly reddish, watery vaginal discharges, pain in the sacral region, and general debility. On examination, the uterus was considerably enlarged, measuring 4 inches in the depth of its cavity, retroverted, and quite moveable. The cervix, which was quite healthy, was dilated with a tent, and a quantity of friable outgrowth in the cavity detected and removed. No improvement in the symptoms resulted. A few weeks later total extirpation was advised, and performed a few days ago. The operation presented nothing unusual, except that after it was completed an embryonic dermoid cyst of the size of a small orange presented in the wound and was removed. The patient made an excellent and speedy recovery. The specimen showed that the disease was strictly confined to the interior of the uterus. The case was therefore a typical one for the operation of total extirpation. Dr. Johnston, Lecturer on Pathology in McGill University, had made a microscopical examination, and pronounced the disease to be carcinoma, less favorable for non-recurrence than sarcoma, which it was hoped it might be.

Dr. Johnston thought, from its appearance, the cyst must have arisen from inclusion of a portion of the amnion in early fœtal life.

Dr. Hingston thought it was properly a piece of included fœtal membrane.

Ovariotomy during Pregnancy.— Dr. Wm. Gardner made a brief communication about a case related to the Society, with exhibition of the specimen, some three months ago. The case in question was one of ovariotomy performed on a patient suffering from symptoms of peritonitis. The tumor was a dermoid cyst, universally adherent, with twisted pedicle; washing out and drainage were resorted to, the drainage-tube remaining in the Douglas pouch and resting against the posterior wall of the uterus for five days. The patient made an easy and rapid recovery. At the operation the uterus was suspiciously bulky, softened, and vascular. The possibility of pregnancy certainly occurred to the operator, but was not seriously entertained. However, a few days ago he had an opportunity of examining the woman, and found her certainly pregnant about five months. In some particulars he thought the case unique, and well worthy to be placed on record. Ovariotomy during pregnancy without interruption of gestation has been performed a good many times; but uninterrupted gestation in spite of ovarian tumor with twisted pedicle and consequent severe peritonitis, and a complicated ovariotomy with seperation of adhesions, copious washing out drainage-tube for five days, if not unparalleled must be exceedingly rare.*

Dr. Hingston thought it should not be an invariable rule.

Dr. Gardner thought that those operating largely were agreed that the danger of such operation was less than the danger from the tumor if left till full term. His course would depend from the date of pregnancy.

Fibro-cystic Tumor of the Testicle.—Dr. Roddick reported a case of fibro-cystic tumor of the testicle, and made some general remarks upon the subject of tumors of the tesicle. He said: The specimen I show you is a diseased testicle removed a few weeks since. The patient, a healthy-looking young man of 24 years, was brought to me from one of the neighbouring States, having a history of slow enlargement of the testicle, the duration extending over at least ten years. Thus the patient being only 24, there is no likelihood of its being syphilitic. So far as he remembered, the testicle was never injured. He had gonorrhœa some four years ago, and is now suffering from stricture. No history inflammation of the epididymis or testicle during the presence of the gonorrhœa. On examination, the left testicle was found to be the size of the closed fist, very heavy, and generally firm to the feel. In one place in the front was a distinct spot of fluctuation, which led one surgeon to suspect hydrocele and to tap, removing about a drachm of blood-stained serum. The bulk of the mass, however, was very firm and fibrous in the feel. The cord is quite free and normal to the feel. The diagnosis was fibro-cystic disease. I advised removal. In the operation, at the first incision, the hydrocele fluid escaped. The usual mode of operating was modified; instead of ligaturing the whole cord, the vessels were tied separately. Thorough drainage was provided, and dry dressing of borated cotton and naphthol used. The patient was sent home in ten days. Dr. Johnston has given me the following pathological report:

"The specimens were somewhat gelatinous looking, and not vascular. On microscopic examin-

*The patient is now (Sep. 6) daily expecting her confinement, and except for complaint of pain in the loins, is in perfect health.

ation, the main part of the tumor consists of epithelial elements, which do not appear to be growing, are colloid in looking and are obviously seminal tubes, whose epithelial cells have degenerated on account of the growth of a large amount of fibrous connective tissue, which has in places undergone a similar degeneration to that of the epithelium, and the amount of which varies in different places. Without knowing the history of the case, I thought from the specimen that it was a tumor growing out of an old cicatrix. Should call it quite benign, with the single reservation that tumors arising out of inflammatory products have a tendency to recur. At all events, it has none of the distinctive microscopical appearances of a malignant growth. (Of course this statement only refers to the bits given me to examine, but I supposed the rest was of the same nature.)"

The name which I gave to this tumor, fibro-cystic disease, is, in my opinion, a good one for clinical purposes, although I am aware it is seldom employed now-a-days by pathologists. We have the pure fibroma (often an atrophied condition) and the cystoma described, but in my experience we get the fibrous element predominating to such an extent in some cases that we are justified in retaining the old name. I think that the greater the cystic formation, the more likely is the tumor to have malignant tendencies, and fibro-cystic tumors doubtless often degenerate in this way. Will this tumor? Dr. Johnston thinks it may. Unfortunately, the condition of the cord, while of some service in making a prognosis, is not always reliable

Dr. RODDICK then exhibited photographs of the patient before and after the operation.

Dr. FENWICK spoke of the difficulty in prognosis after removal of such tumors. Even with the microscope it was not always possible to say whether it would return in the stump. He agreed with Dr. Roddick, except that he thought the two classes of tumors he described could look as like as two peas, and cited cases to prove it.

Dr. HINGSTON urged the propriety of always giving a favorable prognosis in all cases of tumor of testicle where cord was not involved. As to detail in the operation, he thought Dr. Roddick's special procedure was the general rule. It was not necessary to attach the cord to the skin.

Dr. RODDICK, in reply, stated that he had formed his opinion after referring to at least five leading authors, including Bryant. Had himself seen Bryant ligature *en masse*.

Sayre's Hammock. Dr. RODDICK also gave a demonstration of modification of Sayre's hammock, to avoid the danger of the jacket in applying plaster-of-paris jacket.

Stated Meeting, June 10th, 1887.

J. C. CAMELON, M.D., PRESIDENT, IN THE CHAIR.

Dr. R. L. MACDONNELL read the history of two interesting cases which had recently come under his notice.

1. *Malignant Disease of the Lung.*—A boy, aged 3 years, had appeared for some weeks to be suffering from shortness of breath, without any other symptom. At the first visit, the whole right chest was found to be flat on percussion, and to present the physical signs of pleurisy with effusion. Aspiration yielded a negative result, nothing but a few drops of blood entering the instrument. These being examined by Dr. Wyatt Johnston were found to contain no pus, but an unusual number of leucocytes. Several further attempts at aspiration yielded scarcely better results. At one time about two ounces of pure blood were withdrawn. Dyspnœa became very urgent, and pressure signs, distension of thoracic veins, and œdema of the right side of the face set in. The child died after an illness of six weeks. An autopsy showed that the right lung was the seat of an extensive growth of a lympho-sarcomatous nature. No other organs were found involved.

Discussion.—Dr. JOHNSTON stated that the tumor was a lympho-sarcoma. It was like a small, round-celled sarcoma, but with a number of lymph elements. The specimens showed the anomaly that, though sarcomatous, the cells were arranged in alveoli.

Dr. HINGSTON said the symptoms seemed to point to empyema, cancer is so rare in children. He also quoted a case of empyema that occurred about the same time, in which the first aspiration produced fluid, but the second gave none, the pus having become consolidated.

2 *Cerebral Syphilis.*—The second case was that of a married woman, aged 20, who entered hospital on account of "fits," which had occurred off and on during the last nine months. These attacks, one of which occurred in the hospital, consisted of clonic spasms affecting the left side of the face and left arm, and were preceded by a distinct aura. There was subsequent hemiplegia of these parts, with dragging of the left leg on

attempting to walk. On the left side the reflexes were exaggerated and ankle clonus present. General intelligence was but fair, and speech thick. Optic neuritis was present in both eyes, with intense, but not localized, headache. Though no history of syphilis was to be obtained, a course of inunction with mercury was carried on to salivation, Dr. MacDonnell recognizing that the symptoms were the result of some lesion of the motor area of the right side of the brain, and that the most probable origin of such a condition was syphilitic tumor. The result was most satisfactory. Complete recovery of the paretic parts rapidly ensued, the headache disappeared, and after a month's stay in hospital the patient returned home in an excellent state of health.

Discussion.—Dr. Stewart stated that he was called to see the case. He thought there were two points of great interest in this case. The first was that the onset of the symptoms seemed to point to a cortical lesion which was probably of syphilitic origin; the lesion might be a tumor or merely a thickening of the membrane. The second point to be observed is the greater value of mercury compared to potassium iodide in the treatment of cerebral syphilis. If the woman could have stood the effects of more mercury she would probably have got better sooner. He also called attention to the value of using an antiseptic mouth-wash. In Vienna mercury was rubbed in thirty times a month without saturation, because the patient's mouth was well washed.

Dr. Cameron asked at what point could one determine when the mercury had reached its full effect, and when would it be advisable to resort to operation?

Dr. Stewart replied that if the disease was syphilis, a complete cure might be expected; but if no effect was produced in six months, operative procedure might be considered.

Dr. Hingston referred to the efficacy of potassium iodide over mercury in his experience. There is very little doubt of the superior efficiency of potassium iodide over mercury in syphilis generally, why not in cerebral syphilis? He then referred to the difficulty of diagnosing syphilis even in cases where the lesion was visible, and quoted cases where it had been mistaken for malignant disease. He believed potassium iodide was a scavenger for the disease, and if it had no effect on any disease, that disease was not syphilitic.

Foreign body in the Bladder.—Dr. Hingston related an interesting case of this nature. An old man came into hospital complaining of frequent micturition at night, with pain and other symptoms of calculus. The lithotrite was introduced without preliminary sounding, opened, and closed on something soft, not attached to the vesical wall. On withdrawing it, found a piece of sheet rubber; again introduced the instrument, and withdrew another piece, and afterwards crushed and removed a calculus that was there. Patient stated that he had been examined with an instrument in Chicago, where he was treated for irritation of he neck of the bladder. Probably part of the rubber catheter was left.

In reply to Dr. Gurd, Dr. Hingston stated that the rubber was very much incrusted.

Case of supposed Aneurism.—Dr. MacDonnell related a case of supposed thoracic aneurism. There was great intrathoracic pain, and neuralgic pains in the course of the fifth and sixth nerves, requiring hypodermics to produce sleep. Patient had history and symptoms of syphilis. Complete relief was afforded by potassium iodide. There is now no pain nor any pressure symptoms; and patient is up and about the wards.

In answer to Dr. Gurd, Dr. MacDonnell said that potassium iodide gives wonderful relief in cases of aneurism. Would not say whether this was due to its antisyphilitic action or to its power of producing a clot in the sac.

Progress of Science.

LOCAL TREATMENT OF SCROFULOUS GLANDS,

WITH A NOTICE OF COMPOUND SYRUP OF TRIFOLIUM AS A THERAPEUTIC AGENT.

BY H. C. ROGERS, M. D., BROOKLYN.

All surgeons are familiar with the class of cases to which I would draw attention, and probably there are few of them who have not wished such cases removed from their care. I allude to the large number of strumous children with slowly suppurating cervical and other lymphatic glands, tedious and insidious in their course, and generally, after months and, it may be, years of suffering, ending at the best in elevated or depressed cicatrices and unsightly scars. Under the most careful and judicious treatment, the surgeon is liable to bring disgust to his patient and friends and discredit on himself. The old practice by free incisions, blisters, valvular openings, and other means which

were in use ten years ago, or have been introduced within that period, I have had recourse to with varying results, a few cases healing kindly, while others (the majority), in every respect favorable, have tried my skill and patience for weeks and even months.

During the past two years I have pursued one of two lines of treatment: 1. Teal's method of dissecting out the enlarged and inflamed glands and scraping old sinuses. I have resorted to this method in three cases, with results which were all that could be desired. The one objection to it is that it is quite an operation and can not be adopted without an anæsthetic. To this the parents and friends of the children frequently object, remarking that they would rather take a longer time than to have any operation performed on their little ones. 2. In the "Annals of Surgery" for December, 1885, p. 493, will be found an editorial by Dr. L. S. Pilcher reviewing an article in the "Revue de Chirurgie" for May, 1885, by Professor Verneuil, of Paris, on the treatment of cold abscess by drawing off the pus and injecting an ethereal solution of iodoform.

Case I.—A short time (January 3, 1886) after reading the article referred to, I was asked to see a young lady who was suffering from cervical abscess on the left side. She had had a similar abscess on the right side three years before, which had healed, but had left an unsightly scar. Her general condition at this time was poor; she was anæmic, and her occupation (that of school-teacher) kept her closely confined to the house. She told me she could not afford to lose any time, and asked if there was not some way of treating the abscess by which to avoid leaving such an ugly scar. I stated to her that I knew of no operation other than dissecting out and scraping the cavity that would give her any relief, but that I would try and devise some form of treatment whereby she would lose no time. She reported at my office the following morning, when I drew off the pus in the abscess with the finest needle in my aspirating case. After the fluid had ceased running, I slowly injected 250 minims of a five-per-cent. solution of iodoform in ether. The patient complained of some heat and smarting at the commencement of the injection, but this all passed off before I had completed the operation. The small wound made by the needle was closed with collodion, and the patient was given a tonic containing arsenic, iron, and iodide of potassium.

January 5th.—Patient called at my house. The seat of yesterday's injection is quite swollen, but has lost its soreness and redness and causes her no annoyance.

6th.—Swelling much smaller, free from pain. On the opposite side, just below the old scar, I find a small enlarged gland, which feels soft in its center, but does not fluctuate. With the smallest needle I injected between 20 and 30 minims of a five-per-cent. ethereal solution of iodoform. The injection aroused some pain, which passed away in the course of an hour.

10th.—She says she has suffered no pain nor any inconvenience in or about her neck. The swelling over the site of the first operation is nearly gone, and the skin has resumed its natural color. The seat of the last injection is still quite hard, but the gland is much smaller.

April 3rd.—Patient's condition good. All glandular swelling is well gone. There is no evidence on the former site of operation.

The patient passed through a moderately severe attack of typhoid fever during the autumn of 1886. She is now feeling quite well, and is able to attend to her duties as school-teacher. She has had no further trouble with the glands on her neck.

Case II.—Kate B., aged twelve, of strumous appearance, applied to me (March, 1886), suffering from an abscess of the cervical glands on the left side of the neck of about the size of a hen's egg. There was only slight redness of the skin, but fluctuation was well marked. By means of a fine aspirating needle I gave exit to a small quantity of thin pus. I then slowly injected into the cavity between 200 and 300 minims of a five-per-cent. ethereal solution of iodoform. She complained of some heat and pain at first, but both had entirely passed away before she left. She was ordered arsenic, iron, and iodide of potassium.

Six days later the patient called with her mother, who stated that her daughter had since not complained of any pain. The swelling was about half the size it was when I injected it. Over the site of the injection a small spot of induration could be felt. The mother called my attention to the child's tonsils, which were enlarged. I directed her to paint them with tincture of iron three times daily, and to keep on with the medicine. At the end of the ninth day the swelling was fully two-thirds smaller; no pain, redness, or heat; appetite good; and the patient said that she felt better.

I did not see this patient again until October, 1886, when the mother said that her daughter had had no more trouble with her neck since the operation, a statement which I was able to confirm a few days later.

Case III.—July 1, 1886, Robert J., aged ten, in poor health. He had a swelling on the right side of his neck of about the size of an English walnut, bluish-red, evidently about to break. The case was an unfavorable one for injection; but, at the earnest request of the father, who had seen the effect in the first case cited above, I consented to operate. I drew off the pus, which was thin and watery, and contained small pieces of cheesy matter, and injected the cavity with a five-per-cent. ethereal solution of iodoform. The operation was performed with great care, but just before I applied the bandage I noticed a small space where the solution was oozing out. The case progressed fairly well for the next two or three days, when (July 4th) the patient went on an excursion contrary to my wishes. On the way back a severe thunder-storm broke over the grove. My patient got thoroughly wet, and, having no means of drying, had to remain

in damp clothing the rest of that day (about eight hours). That night I was sent for to see my patient. When I reached the hotel where he was staying, I learned that a short time before they sent for me he had had a chill, and was complaining of a severe pain and burning over the left side of his neck and face, which were much inflamed. He was ordered quinine and iron, and his face and neck were bathed with a solution of biniodide of mercury, 1 to 3,000. The following morning I found him much better, the pain and redness nearly gone. The abscess which I had injected was about the same in size, but had lost its red, angry look. At the end of three weeks the swelling was entirely gone, leaving a very trifling scar, in marked contrast with the scar on the opposite side of his neck, where he had suffered from another abscess some time before.

I have treated by the method now mentioned nine cases in all. The swelling has gradually disappeared, taking from three weeks to two months.

Professor Verneuil's plan is, first to evacuate the abscess by aspiration. To do this he makes use of a large-sized trocar, handling the parts as little as possible. As soon as the liquid becomes slightly blood-stained, he injects the cavity with the solution, which is one of five per cent. The largest quantity used is one hundred grammes; generally fifty or sixty grammes suffice. The amount of iodoform remaining in the abscess cavity to be absorbed rarely exceeds four to five grammes. He has never seen any bad effects from the absorption of ether.

My experience has been that generally one injection will be sufficient. In only three cases have I found it necessary to repeat the injection into the same swelling. In four cases I injected glands where I could not find pus, but where the centre of the swelling was soft and in a condition to break down. In such cases my plan is to inject from ten to twenty minims of a two per-cent. to three per-cent. solution. In all cases the swelling is gradually reduced, so that in from four weeks to three months it has entirely disappeared. In all my cases I have employed internal treatment, as all the patients were more or less anæmic. Up to some six months ago I had been using a tonic containing arsenic, iron, and iodide of potassium; but, on account of the difficulty apothecaries have in making up a pleasant mixture that children would take, I have had some trouble in keeping up the treatment with the regularity I would like.

About six months ago I received a sample bottle of compound syrup of trifolium, which is a mixture containing iodide of potassium, combined with the vegetable alteratives red clover, burdock-root, prickly-ash bark, stillingia, poke-root, and *Berberis aquifolium*, each ounce containing eight grains of the iodide of potassium. The skill of the manufacturers, Parke, Davis & Co., has succeeded in so combining these drugs as to render the finished preparation very palatable—a property most essential to a preparation which is designed for prolonged administration.

I am in the habit of using the iodide of arsenic, bichloride of mercury, sulphide of calcium, or iron, with the compound syrup of trifolium. Children will take this combination for a long time, and not be troubled with nausea or any derangement of the stomach. I have a patient, a child suffering from congenital syphilis, who has taken it since its first introduction, six or seven months ago. She is taking one fiftieth of a grain of bichloride in half an ounce of the compound syrup of trifolium, and has improved in every way while under its influence.

From my experience with this syrup in a great variety of cases, and from the very satisfactory results which I have obtained from its use, I am of the opinion that it is destined to occupy a high position among our therapeutic resources.

Since preparing the foregoing paper, I have learned that Professor Verneuil has substituted glycerin for ether, using fifteen to twenty grammes of iodoform in sufficient glycerin to make a thin paste. I learn also that Professor Billroth, at his clinic, uses a solution of ten parts of iodoform to one hundred parts of glycerin, for the same purpose, and speaks very highly of it.—*N.Y. Med. Journal.*

TREATMENT OF CHRONIC SYPHILIS.

In the treatment of chronic syphilis, but too often it happens that the patient improves up to a certain point, and then ceases to respond to the administration of antisyphilitic remedies, even when they be combined with the most careful hygienic treatment and the exhibition of tonics, etc.

Any remedy which offers a fair probability of being able to carry on the amelioration of the disease under these circumstances is one worthy of very careful consideration by the profession.

Many years ago Mr. Carmichael, of Dublin, asserted that he found the oil of turpentine often of unquestionable value in the treatment of obstinate and long-continued syphilitic iritis, and during the service of Mr. G. J. Guthrie, of the Royal Ophthalmic Westminister Hospital, the practice was accompanied with alleged excellent results.

Mr. Jabez Hogg of the same hospital has recently (*Medical Press and Circular*, April 27) published the account of a case in which, after the failure of mercurials by the mouth, by inunction, and fumigation conjoined or alternated with the use of mydriatics, tonics, iodide of ammonium, iron, etc., turpentine succeeded. It was given in ½ drachm doses, suspended in mucilage, three times a day after meals. For the first week an inunction of a twenty per cent. solution of the oleate of mercury was freely employed, but this was then laid aside, and for four months the turpentine alone was steadily persevered in. Not only was the patient's general health improved but the corneal opacity of the iritis gradually disappeared, and at the time of the making of the report the serous exudations and other local changes in the eye had so far been absorbed or ameliorated that the vision was almost what it was before the inflammatory attack, fourteen months previous.

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MONTREAL, SEPTEMBER, 1874.

COLLEGE OF PHYSICIANS AND SURGEONS OF THE PROVINCE OF QUEBEC.

The semi-annual meeting of the College of Physicians and Surgeons of the Province of Quebec was held in Laval University, in the city of Quebec, on the 28th September. In the absence of Dr. W. H. Hingston, the President, who was unavoidably detained, the Hon. Dr. Ross, Vice President, for Quebec, took the chair. There were present: Dr. J. L. Leprohon, Vice-President, for Montreal; Dr. E. P. Lachapelle, Treasurer; Dr. L. Larue, Registrar; Dr. A. G. Belleau and Dr. F. W. Campbell, Secretaries; Drs. E. A. de St. George, M. P., C. S. Parke, R. S. Rinfret, M.P.P., A. A. Waters, C. E. Lemieux, sen., L. J. A. Simard, of Quebec; T. A. Rodger, R. A. Kennedy, Robert Craik, R. P. Howard, L. B. Durocher, of Montreal; Malcolm Guay, M. P., St. Romuald; L. T. E. Rousseau, St. Casimir; P. E. Grandbois, M. P., Fraserville; Tancrede Fortier, St. Marie de la Beauce; G. E. Turcotte, St. Hyacinthe; Thos. Christie, Lachute; J. A. Duscheneau, Terrebonne; L. D. Lafontaine, St. Edouard de Napierville; David Marcil, St. Eustache; G. E. Badeaux, Three Rivers; Thos. Larue, Compton; F. J. Austin, Sherbrooke. After the reading of the minutes of the previous meeting, Dr. Campbell, Dean of the Medical Faculty of Bishop's College, announced that as Dr. Kennedy had improved in health he would again take his seat on the Board as one of the representatives of Bishop's College.

Reports from the assessors of the Medical Faculties of Laval University in Quebec and Montreal, and of Victoria College, were received and adopted.

Dr. Manseau, of Red Jacket, Michigan, applied for a duplicate license—the original having been burned. The request was granted.

The following gentlemen, having passed satisfactory examinations before the Board of Examiners on General Education, were admitted to the study of Medicine, viz.: George Clouter, John Busby, Sylvia Lebœuf, G. Octave Johnson, Jules Chopin, Albert Aubry, Louis Coderre, Arthur Blouin, George Eugène Guillemette, Adélard Bazin, Aquila Piclette, Alexis Belleurarre, Chas. Edouard, L. Auger, Wilfrid Beaudoin, Gidéon Blanchet, P. B. Boisseau, Léger Brousseau, Achille Chandonnet, Achille Dagenais, Osias Dagneault, James E. Kearney, P. O. Lauzon, Ovide Normandin, R. Auguste Paradis, J. N. Perreault, Joseph Poupart, François de Sales Prevost, Chas. Auguste Prevost and J. W. Rourke.

The following graduates received the license of the College:—Joseph Lespérance, Montreal; Louis Joseph Octave Sirois, Bic; Chas. Onésime Honoré Desilets, Bécancour; Siméon Eugène Grondin, Quebec; Paul F. Brière, Thetford Mines; Nazaire Napoléon Gingras, St. Nicholas; George Tremblay Bélanger, Sherbrooke; Pierre Julien Bissonnette, St. Esprit; James H. Brodie Allan, John W. Sterling, Joseph Arthur Dagneault, Sévérin J. Girard, Arthur Delisle, Kenneth Cameron, Montreal; Joseph S. E. Ferland, St. Julien, comté de Montcalm; Vincent Howard Morgan, Rivière Beaudet; Antoine Alfred Duhamel, St. Justin de Maskinongé; Wm. Christie, Lachute; Charles Edouard Rasconi, Pierreville.

The subject of the proposed new Medical Bill was then brought forward, when Dr. R. P. Howard stated that the two English Universities of McGill and Bishop's College had discussed it, and were united in opposing certain clauses, principally the one relating to the formation of a Central Examining Board and additions to the preliminary examinations. The Bill was then read clause by clause. Dr. Howard proposed, and Dr. F. W. Campbell seconded, that clause 7 of the present Act be maintained, and that it replace clause 24 of the proposed Act, thus doing away with the proposed Central Board of Examiners.

This amendment was rejected on the following division:—*For*—Doctors Howard, Craik, Christie, Rodger, Kennedy, Austin, Lemieux, Simard, Durocher, Campbell.—10. *Against*—Doctors Lachapelle, Duchesneau, Lafontaine, Thos. Larue, Grandbois, Paré, Rousseau, Marcil, Turcotte, Watters, St. George, L. Larue, Guay, Badeau, Fortier, Rinfret, Belleau.—17.

Proposed by Dr. Marcil, seconded by Dr. Simard, and carried on a division of 16 to 12, that the date of holding the professional examination

be made the first Wednesday in July. This amendment shows a change in the views of the Board, the date fixed by it at the previous meeting being the first Wednesday in May.

Dr. Howard proposed, seconded by Dr. Christie, that the preliminary examination for admission to medicine be relegated to the Roman Catholic and Protestant Board of Public Instruction. Lost—7 to 19.

The Bill was then passed as a whole, and referred to the committee, which has already had it in charge, with instructions to have it printed in English and French, and distributed to the members of the Board, also to take the necessary steps to have it brought before the Legislature of the Province at its next session.

A resolution of condolence on the death of Dr. Baddeau, sen., of Three Rivers, one of the oldest members of the profession, was passed, on motion of Dr. Leprohon, seconded by Dr. L. Larue. After several votes of thanks the meeting adjourned after a session of seven hours.

LONDON ILLUSTRATED NEWS.

Most, if not all, of our subscribers know by reputation the *London Illustrated News*, the pioneer Illustrated Journal of the British Metropolis. For many years, in spite of formidable rivals, it has held its own. The care with which its engravings have been prepared, and the literary character of its contents, have all helped to further its hold upon the British public. Unfortunately its high subscription price, nearly $10 a year, prevented it having an extended circulation in the United States and Canada. But all this hindrance has been removed by the publication in New York of an American edition, printed, we believe from plates forwarded from London, and for which issue the subscription is only $4.00 a year. Surely such an enterprise deserves success, and we hope soon to hear that the *London Illustrated News* is entering regularly every cultured family in Canada. Its New York office is 237 Potter Building, New York.

PERSONAL.

Dr. H. S. Birkett and Dr. Rollo Campbell have been appointed assistant attending physicians to the Montreal Dispensary.

Drs. Thos. Roddick, James Bell and F. J. Shephard have all returned from England after an absence of several months.

Dr. F. M. R. Spendlove (Bishop's 1881) has been appointed attending physician to the Montreal Dispensary, vice Dr. A. F. Longeway resigned.

Dr. Phelan (M.D. Bishop's 1887) has commenced practice at San Bernardino, California.

BOOKS AND PAMPHLETS RECEIVED.

Some Recent Experiences in Clinical Surgery. By Donald Maclean, M.D., Detroit, Mich.

Persistent Pain after abdominal Section. By James B. Hunter, M.D., New York.

Brain Exhaustion. By N. H. Beemer, M. B., first assistant physician Asylum for Insane, London, Ontario.

Observations on the Administration of Chloroorm. By O. J. S. Sullivan, M.D., Ann Arbor. Michigan.

Operations on the Drum-Head for Impaired Hearing: with Fourteen cases. By Seth. S. Bishop, M. D., Chicago.

Mental Epilepsy. By L. W. Baker, M.D., Baldwinville; Mass.

The Scientific Rationale of Electrotherapy. By C. H. Hughes, M.D., St. Louis.

Some Considerations concerning Cancer of the Uterus, especially its Palliative Treatment in its later stages. By Andrew F. Currier. M.D.

A Novel System of Operating for the Correction of the Deflected Septum. By William Chapman Jarvis, M.D., New York.

The Antiseptic Treatment of Summer Diarrhœa. By S. Emmett Holt, A.M., M.D., New York.

Fourteenth Annual Report of the Board of Health of the City of Boston, for the year 1885.

Ovarian Tumors and Remarks on Abdominal Surgery, with the result of 50 cases. By Edward Barck, A.M., M.D., Professor of Surgery, etc., St. Louis, Mo., 1887. Second revised reprint edition.

The Radical Cure of Retro-Displacements of the Uterus and Procidentia by Alexander's operation and Median Colporrhaphy. By J. H. Kellogg, M.D., Battle Creek, Michigan.

Advances in Surgery, Medicine and Pharmacy in the last Forty Years. By C. W. Moore, M.D., San Francisco.

Intubation of the Larynx. By E. Fletcher Ingals, M.D., Chicago.

"Renal Colic" Parasitic and Calculus. By J. B. Marvin, M.D., Louisville, Ken.

Elementary Microscopical Technology Part. 1. By Frank L. James, Ph.D., M.D., St. Louis, Mo.

REVIEWS.

On the Pathology and Treatment of Gonorrhœa and Spermatorrhœa. By J. L. Milton, Senior Surgeon to St. John's Hospital for Diseases of the Skin, London. Octavo, 484 pages. Illustrated. Price, bound in extra muslin, $4.00. New York: William Wood & Company.

Earlier editions of this work have appeared in England, and this edition is an abridged form of these, as also of papers on the same subject, which from time to time have appeared in the *Medical Times* and *Medical Circular*. There are also chapters on gonorrhœal affections of the heart, peritoneum and pleura and the dura mater and sheath of the chord, and gonorrhœal pyæmia, pyelitis, etc., which are now printed for the first time. The work being intended for one of reference, much that has been considered as superfluous has been omitted. The author has endeavored to prove that gonorrhœa can be cured without the use of drugs which have well nigh been held as specifics. Nothing has been recommended in this work, but what has stood the brunt, not merely of experience, for that the author rates rather low, but of special observation. The author's aim has been as far as possible to separate clearly what might be looked on as established from what was doubtful, and not merely to prove every assertion, but to place it on such a basis that it could not be disproved. After the history and pathology, four chapters are devoted to the treatment. Chapter VII treats of the pathology and treatment of gleet. The treatment of spermatorrhœa and impotence occupy the closing chapters of a work which the reader will find to be carefully and ably written, and one of the greatest value as an authority for reference.

A Practical Treatise on Renal Diseases and Urinary Analysis. By William Henry Porter, M.D., Professor of Clinical Medicine and Pathology in the New York Post-Graduate Medical School and Hospital; Curator to the Presbyterian Hospital. One Vol. 360 pages, 100 illustrations. New York: William Wood & Company.

The author states that for the past ten years he has had ample opportunity for studying the various lesions of the kidneys, as they are found in human and animal subjects. As the essential ideas advanced in this book are based upon the statistics gathered from over one thousand post-mortems, Dr. Porter would certainly seem to have had all data necessary for forming a correct opinion upon this subject. Special attention has been devoted to the class of lesions commonly known as Bright's disease, and it is from these observations that the deductions employed throughout the work were obtained. Renal diseases have been studied chiefly from a clinical and pathological point of view and the author has endeavored to present them not only from this standard, but also from the physiological standpoint, deducing the methods of treatment not only from the physiological, but from the pathological phenomena. A chapter is specially devoted to the consideration of diabetes. The second portion of the book is devoted to a study of urinary analysis; not simply the chemical or microscopical examinations of samples of urine, but also the physiological indications, with their bearings on clinical medicine. The original drawings, some fifty in number, were made by Dr. George S. Van Schaick, from sections in the authors possession. The author seems to have taken every advantage of his opportunities, and we consider his work a most valuable one.

A Text book of Pathological Anatomy and Pathogenesis. By Ernst Ziegler. Translated and edited for English students by Donald Macalister, M.A., M.D. Three parts complete in one volume. Octavo, 1118 pages, 289 illustrations. Price, extra muslin, $5.50; sheep, $6.50. New York: William Wood & Company.

The work as now presented consists of three parts complete in one volume; the several parts including sections which treat on such practical subjects as: Malformations, anomalies in the distribution of the blood and of the lymph, retrogressive and progressive disturbances of nutrition, inflammation and inflammatory growths, tumors, parasites, special pathological anatomy of blood and lymph, of the vascular mechanism, of the spleen and lymphatic glands, skin, and serous and mucous membranes, alimentary tract, liver and pancreas, urinary organs, respiratory organs, and nervous system. This work (which is the only recent complete volume on pathological anatomy in the German language), is now presented to the profession in English, having been

ably translated by Donald Macalister, M.A, M.D. of Cambridge, England. The German original is held in high esteem at home, having met with a hearty reception, as is proven by two editions being rapidly exhausted, a third being now in preparation. The treatise is exhaustive in the manner in which its numerous details are taken up. It is abundantly illustrated with excellent wood cuts. The author has wisely considered it best to omit theoretical discussions almost altogether. It is a book to be used as a companion for the text books on Medicine and Surgery. Wm. Wood & Co. deserve great credit for the manner in which they have brought the work before the public.

The Principles of Antiseptic Methods applied to Obstetric Practice. By Dr. PAUL BAR, accoucheur to the Maternity Hospital, Paris; translated by Henry D. Fry, M.D., Philadelphia: P. Blakiston, Son & Co., 1012 Walnut Street, 1887. Price $1.75.

This is a translation of Dr. Bar's work on "Les Méthodes Antiseptiques en Obstetrique," a work that is very popular throughout Europe as the practitioners of obstetrics in Germany and France rigidly adhere to the antiseptic principles and are very successful in their results. While the application of antiseptic practice has found wide favor in the two above mentioned countries, it does not seem to have been adopted with the same enthusiasm by the English-speaking physicians. In the consideration of antiseptic methods and agents, corrosive sublimate is given a high place. In this chapter some very valuable tables, giving the germicidal power of various agents, are given and will repay perusal. In the appendix, the antisepsis of the umbilicus and of ophthalmia neonatorum are considered. The use of antiseptics is greatly on the increase in America, and we predict that this work will meet with a ready sale. The book is gotten up in Blakiston's usual style, having a good binding with clear gold lettering, and the paper and variety of type are of the best.

Handbook of Practical Medicine. By Dr. HERMANN EICHHORST, professor of special Pathology and Therapeutics and Director of the University Medical Clinic in Zurich. Vol. II. Diseases of the Digestive, Urinary and Sexual Apparatus. One hundred and six wood engravings, New York: William Wood & Co., 1886.

Professor Eichhorst has long been favorably known to the Medical public of this country for his contributions to general medicine and nervous pathology. His book has had a favorable reception abroad, and it fully sustains the reputation of the author. There are several things which characterise this work and give to it a particular value; these are the copiousness of the therapeutical discussions and suggestions, and the extremely complete thoroughness with which the author goes over the field of medical pathology. The abundance of the illustrations adds considerably to the attractiveness and clearness of the volume.

Surgery, its Theory and Practice. By WILLIAM J. WALSHAM, M.D., F.R.C.S., Assistant Surgeon to St. Bartholomew's Hospital; Surgeon in charge of the Orthopœdic Department and Demonstrator of Practical Surgery at St. Bartholomew's Hospital; Surgeon to the Metropolitan Free Hospital, London, &c. With 236 illustrations. Philadelphia: P. Blackiston, Son & Co. Price, cloth $3.00, leather, $3.50.

This is the ninth volume of the new series of manuals for Medical Students and Practitioners. This series of works has become extremely popular owing to their great value and the reasonable price at which they are sold. Not a few of the works upon surgery which were designed at first as text-books have been so increased in size at the present time, and become so voluminous with the advance of surgery, as really to be no longer suitable as text-books. The author of the volume before us has prepared it with reference to the wants of the student, so that he can gain an insight into the theory and practice of surgery. The various subjects of surgery are treated, of course, as briefly as possible, but, at the same time, it has been the object not to make such sacrifices to brevity as to fail to give a clear understanding of whatever is treated. The author has given special prominence to those subjects with which every student ought to be acquainted; while the rarer injuries and diseases have received but a brief mention, or have been altogether omitted. No account has been given of the specialties of the eye and ear, as the pathology and treatment of the diseases of these organs are best studied in some one of the very many monographs which are found devoted to them. We have no doubt but that students in attendance upon Colleges, or engaged in studying in the wards of hospitals, will find the work just suited to their requirements.

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UNCONTROLLABLE VOMITING OF PREGNANCY.

DELIRIUM, INDUCED ABORTION, RECOVERY.

By A. LAFTHORN SMITH, M.D., M.R.C.S., England, F.O.S., London, Professor of Medical Jurisprudence, Faculty of Medicine, University of Bishop's College, Consulting Physician to the Montreal Dispensary.

I was called to attend Mrs. ——— on the 16th Oct., 1887. *Previous History.*—I had attended her once before for painful dyspepsia accompanied with severe vomiting about a year ago, which was readily cured with bismuth and morphia. She had one child two years ago, and when she became pregnant with it, she vomited *nearly* everything she took during the first and second months; but she was able to be up a part of each day. She informed me that she had a severe labor, which was followed by puerperal fever and abscess of the breast, which kept her in bed several months. She suffered so much with this, her first pregnancy, that her husband generously resolved to abstain from any further sexual intercourse. In this resolve he persevered for two years, although with considerable difficulty, when one day he mentioned the matter to a friend, who told him he could have connection without endangering her life, provided he withdrew before emission. He had partial connection in this way several times in August, without fecundating her, for on the 21st August she menstruated as usual. His business then called him away until the 19th September, when he returned; but he unfortunately forgot himself, and the result was that she did not menstruate on the 21st Sept. A few days later she commenced to vomit so severely that she took to her bed and sent for her family physician, who during the next three weeks tried a great many remedies without avail.

Present condition—Very much emaciated. Pulse very weak—100. Temperature normal. Does not sleep more than an hour at a time, and has a haggard look. She moans and retches almost constantly night and day, bringing up mucous and bile, and sometimes a little blood. Does not dare to take any food. Has severe headache. Complains of a loathsome taste in her mouth. She is positive that she is not pregnant because of the precautions taken; but a bimanual examination of the uterus shows that it is gravid. It is somewhat enlarged; the body has an elastic feeling, and the cervix is pulpy, and the os slightly open. A specular examination reveals a granular erosion, the size of a 10 cent piece, on the cervix, which presents a dark, purple hue; the vagina is almost slaty in color, and the external organs are very red and sensitive. The breasts are not enlarged and there are no areolæ.

Diagnosis. Although her tongue was red and coated, and although she had already had dyspepsia with vomiting, and in spite of hers and her husband's assurance that she could not be pregnant, the feeling and appearance of the uterus made me feel sure that she was, and that this was a case of vomiting of pregnancy.

Prognosis. This was serious enough. Most of the usual remedies had been tried by her family physician during three weeks without avail, and I was convinced that unless I could put a stop to the incessant vomiting which prevented her from keeping down either medicine or food, and which

was just as constant whether she took anything down or not, I felt sure that she would soon die. M. Gueniot (Cazeaux, p. 468) collected 118 cases of which 72 recovered and 46 died. They were all serious cases.

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As the prognosis becomes more serious every moment we delay, these last 11 deaths might have been cures if abortion had been brought on before the woman's case became desperate.

Treatment Medical. I began with a mixture containing morphia, subnitrate of bismuth, acacia and pepsine. As it increased the nausea, I left the morphia out, and substituted acid hydrocyanic and spirits of chloroform. As she could not keep this down, I tried tablets of different kinds, but with no benefit.

Dietetic.—For several days before I saw her she had been taking milk and soda water; but she could not keep it down more than a few minutes. I tried milk and lime water, and she kept this in teaspoonfuls for two days, but she turned against it; beef tea she could not even swallow, and at last she was reduced to sucking small pieces of ice, which she vomited as soon as it became warmed. I then began rectal alimentation with peptonized milk and beef tea and a little brandy. She rallied a little on this, but the rectum becoming irritable she could not after two days retain it longer than a few minutes, and she was so low that I did not dare to introduce morphia with it.

Surgical.—I began by applying a blister to the epigastrium. I then cauterized the erosion on the os uteri with solid nitrate of silver. Both of these measures proved futile. She was now reduced very low. She was consumed with a burning thirst which she could not assuage. Her bowels had not been moved for many days, and she was distended with flatus, neither of which conditions were relieved by copious enemata, or turpentine stupes on the abdomen. She had a horrible taste in her mouth which made her loathe herself, and she prayed that she might die. Her temperature began to fall below normal and delirium set in, so that by the 23rd I felt sure that surgical gynecology alone could save her, and I determined to clear out the contents of the uterus. Whether the vomiting be due, as some think, to reflex irritation of the sympathetic nerves of the stomach due to pressure on its uterine filaments by the growing and distending uterus; whether it is due to hardness and lack of distensibility of the uterine walls; whether it is due to disease of the lining membrane of the uterus, which I think is the cause, or to disease of the ovum, I am convinced that the surest and safest way to put an end to the trouble is to turn the contents of the uterus out. This is the view held by Veit of Berlin, whom I witnessed performing the same operation for the same cause. Neither is provoked abortion in skilled hands an at all dangerous proceeding, if the preliminary dilatation of the uterus is performed with thoroughly aseptic tents and the uterus and vagina are kept aseptic both before and afterwards by means of frequent antiseptic irrigations. There is no danger from hemorrhage because the uterus will surely be made to contract by irrigation with very hot water.

On the 23rd Oct., therefore, I called Dr. Gardner in consultation, and he was perfectly satisfied that her condition was desperate, and that an abortion was an immediate necessity. The patient was placed on a table in Sim's position, and he introduced a carefully carbolized sponge tent, without the aid of ether. It caused very little pain; but when he removed it next day, the 24th Oct., it was constricted at the internal os which had to be further dilated with a Goodell dilator, in order to allow a large sized tupelo tent to be introduced. On the 25th the os was well dilated; the patient was placed on the table and the uterus and vagina well washed out with sublimate solution 1 to 2000. She was then anæsthetized with the A. C. E. mixture, which acted most satisfactorily, and Dr. Gardner skilfully removed the ovum and a considerable part of the uterine mucous membrane with spoon forceps. An irrigator with 1-5000 sublimate solution as hot as could scarcely be borne by the hand was in readiness with a Fritsch-Bozeman return flow uterine catheter attached, and the moment the ovum was removed, and while the blood was pouring out of the uterine sinuses, the catheter was introduced to the fundus, and the water turned on, when we had the pleasure of seeing the flow of blood instantly arrested, and the

uterus firmly contracted. The os and vagina were thoroughly insufflated with iodoform, and she was replaced in bed. The vomiting was not relieved by the dilatation, as has been held by some. She continued to vomit all that day, but has not vomited once since then. There was little or no hemorrhage after the operation, and the very next day she began to drink beef tea and milk in increasing quantities. She had no rise of temperature; in fact, to use her own words, she felt so much better that "it was like being in heaven." On the 12th Nov. she is up and well. The only regret that I had was that I had not decided upon the operation sooner. The perfect recovery was largely due to the minute antiseptic precautions employed.

Society Proceedings.

MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

Stated Meeting, June 10th, 1887.

J. C. CAMERON, M. D., PRESIDENT, IN THE CHAIR.

Dr. R. L. MACDONNELL read the history of two interesting cases which had recently come under his notice:

1 *Malignant disease of the Lung.*—A boy, aged 3 years, had appeared for some weeks to be suffering from shortness of breath, without any other symptom. At the first visit the whole right chest was found to be flat on percussion, and to present the physical signs of pleurisy with effusion. Aspiration yielded a negative result, nothing but a few drops of blood entering the instrument. These being examined by Dr. Wyatt Johnston were found to contain no pus, but an unusual number of leucocytes. Several further attempts at aspiration yielded scarcely better results. At one time about two ounces of pure blood were withdrawn. Dyspnœa became very urgent, and pressure signs, distention of thoracic veins, and œdema of the right side of the face set in. The child died after an illness of six weeks. An autopsy showed that the right lung was the seat of an extensive growth of alympho-sarcomatous nature. No other organs were found involved.

Discussion.—Dr. JOHNSTON stated that the tumor was a lympho-sarcoma. It was like a small, round-celled sarcoma, but with a number of lymph elements. The specimen showed the anomaly that, though sarcomatous, the cells were arranged in alveoli.

Dr. HINGSTON said the symptoms seemed to point to empyema, cancer is so rare in children. He also quoted a case of empyema that occurred about the same time, in which the first aspiration produced fluid, but the second gave none, the pus having become consolidated.

2 *Cerebral Syphilis.*—The second case was that of a married woman, aged 20, who entered hospital on account of "fits," which had occurred off and on during the last nine months. These attacks, one of which occurred in the hospital, consisted of clonic spasms affecting the left side of the face and left arm, and were preceded by a distinct aura. There was subsequent hemiplegia of these parts, with dragging of the left leg on attempting to walk. On the left side the reflexes were exaggerated and ankle clonus present. General intelligence was but fair, and speech thick. Optic neuritis was present in both eyes, with intense, but not localized, headache. Though no history of syphilis was to be obtained, a course of inunction with mercury was carried on to salivation. Dr. MacDonnell recognizing that the symptoms were the result of some lesion of the motor area of the right side of the brain, and that the most probable origin of such a condition was syphilitic tumor. The result was most satisfactory. Complete recovery of the paretic parts rapidly ensued, the headache disappeared, and after a month's stay in hospital the patient returned home in an excellent state of health.

Discussion.—Dr. STEWART stated that he was called to see the patient. He thought there were two points of great interest in this case. The first was that the onset of the symptoms seemed to point to a cortical lesion which was probably of syphilitic origin; the lesion might be a tumor or merely a thickening of the membrane. The second point to be observed is the greater value of mercury compared to potassium iodide in the treatment of cerebral syphilis. If the woman could have stood the effects of more mercury she would probably have got better sooner. He also called attention to the value of using an antiseptic mouth-wash. In Vienna mercury was rubbed in thirty times a month without saturation, because the patient's mouth was well washed.

Dr. CAMERON asked at what point could one determine when the mercury had reached its full effect, and when would it be advisable to resort to operation?

Dr. STEWART replied that if the disease was

syphilis, a complete cure might be expected; but if no effect was produced in six weeks, operative procedure might be considered.

Dr. HINGSTON referred to the efficacy of potassium iodide over mercury, in his experience. There is very little doubt of the superior efficiency of potassium iodide over mercury in syphilis generally why not in cerebral syphilis? He then referred to the difficulty of diagnosing syphilis even in cases where the lesion was visible, and quoted cases where it had been mistaken for malignant disease. He believed potassium iodide was a scavenger for the disease, and if it had no effect on any disease, that disease was not syphilitic.

Foreign body in the Bladder.—Dr. HINGSTON related an interesting case of this nature. An old man came into hospital complaining of frequent micturition at night, with pain and other symptoms of calculus. The lithrotite was introduced without preliminary sounding, opened and closed on something soft not attached to the vesical wall On withdrawing it, found a piece of sheet rubber; again introduced the instrument, and withdrew another piece, and afterwards crushed and removed a calculus that was there. Patient stated that he had been examined with an instrument in Chicago, where he was treated for irritation of the neck of the bladder. Probably part of the rubber catheter was left.

In reply to Dr. Gurd, Dr. Hingston stated that the rubber was very much incrusted.

Case of supposed Aneurism.—Dr. MACDONNELL related a case of supposed thoracic aneurism. There was great intrathoracic pain, and neuralgic pains in the course of the fifth and sixth nerves, requiring hypodermics to produce sleep. Patient had history and symptoms of syphilis. Complete relief was afforded by potassium iodide. There is now no pain nor any pressure symptoms, and patient is up and about the wards.

In answer to Dr. Gurd, Dr. MacDonnell said that potassium iodide gives wonderful relief in cases of aneurism. Would not say whether this was due to its antisyphilitic action or to its power of producing a clot in the sac.

Stated Meeting, Sept. 30, 1887.

J. C. CAMERON, M. D., PRESIDENT, IN THE CHAIR.

Drs. J. Stirling and K. Cameron were elected members of the Society.

PATHOLOGICAL SPECIMENS.

Dr. JOHNSTON exhibited the following specimens:—

1. *Enlarged prostrate, with bladder attached*, showing the beneficial effects of systematic catheterization. Bladder mucosa was quite normal, and neither the ureters nor the kidneys were affected, though the enlargement was sufficient to prevent the passage of urine except by the use of a catheter.

2. *Acardia*; a fœtus from the McGill College Museum, with the organs of circulation entirely wanting.

3. *A fibrous nodule*, found lying free in a pocket formed by an old pleuritic adhesion. The nodule was quite cartilaginous in consistence.

Dr. MAJOR exhibited his new instrument for the removal of growths from the vault of the pharynx. It works on the principle of the guillotine, and is a great improvement on the older forms of forceps, as the uvula could not be caught in the instrument, and most growths could be removed at one operation.

Dr. WILKINS, First Vice-President, took the chair, and

The PRESIDENT (Dr. Cameron) read a paper on *The influence of Leukæmia on Pregnancy and Labor*, which will appear shortly in the *American Journal of the Medical Sciences*. He said that after a careful search through the literature of the subject he had been able to find reports of only four cases where leukæmia was said to have occurred in the course of pregnancy, but in none of these had a blood-count been made, or the condition of liver and spleen carefully examined. No case has hitherto been recorded where a woman already leukæmia has been known to become pregnant. He then reported at considerable length a case which he considers unique. A woman, aged 36, married, was treated in Montreal General Hospital for leukæmia, in September, 1885, and at the same time her three months old infant and six year old daughter were found to be leukæmic. She became pregnant in March, 1886, her liver and spleen became enlarged and tender, and as pregnancy went on, dyspnœa and œdema became extreme, and her blood showed profound alterations. She had repeated attacks of epistaxis before labor set in, and became so weak and faint that her condition was really alarming. She was confined in the University Maternity Hospital on 29th October, 214 days after cessation of last menstrual period.

Her labor was perfectly dry and bloodless, and a scant slimy discharge for a couple of days was the sole lochial flow. Two hours after the birth of the child, the blood of both mother and child was examined, with the following result:—

Mother—Red corps., per c.mm., 990,000..W:R=1:4
Child— " " " 5,210,000..W:R=1:175

She made a rapid convalescence, and was discharged from hospital on the twelfth day, when her blood was found to have improved so as to register

Red corps., per c.mm., 1,900 000..W:R=1:35

The placenta was carefully examined, and showed remarkable and interesting differences in the quality of the blood at different parts:

Pl. Vein—Red corps., per c.mm., 4,60,000..W:R=1:173
Pl. Artery- " " " 5,410,000..W:R=1:270
Pl. Sinuses—" " " 950,000..W:R=1:36

The child, which throve nicely for a day, was clandestinely put by the patient to her own breast, and in a few hours a purpuric rash appeared and spread over the body, the child began to vomit and purge, and in four days died. Nothing special was found post-mortem. The patient regained her strength so completely that she was able to do heavy housework, wash and scrub, iron, and drive a waggon to market. Early in May, 1887, she became again pregnant, liver and spleen began again to enlarge, her red corpuscles to decrease, and white corpuscles to increase, and the course of pregnancy is running along very similar to the previous one. She is being kept under careful supervision, and a number of interesting observations are being made which will be published in due time. In conclusion, Dr. Cameron summarized the points of interest in the case as follows:

1. *The family history.*—The grandmother, mother and brother of the patient have suffered from symptoms probably pointing to leukæmia. Two of her own children have had well-marked leukæmia; another is now in ill-health with diminished red cells and enlarged spleen. None of her children reach the normal standard of five to six millions of red corpuscles were c.mm. All of them have had jaundice. In this case there seems to be a strong *hereditary* tendency.

2. The enlargement of the spleen was first noticed by the patient at the beginging of her sixth pregnancy, and now both liver and spleen begin to enlarge when she becomes pregnant, while at the same time her red corpuscles diminish and white corpuscles increase.

3. During labor and the puerperal period, there was absence of hemorrhage or any appearance of blood.

4. After labor, the œdema and dyspnœa rapidly subsided, the red corpuscles increased and white corpuscles decreased, till her usual strength and vigor were regained, though the spleen remains considerbly enlarged.

5. The remarkably chronic course of the disease, and the recurrence of pregnancy (now the third time since splenic enlargement was first noticed).

6. The remarkable difference between the blood of mother and child and of the blood in the placenta, showing that the fœtal and maternal circulations were not only entirely distinct, but also that the child actually made red-blood in its body and lost it in the placenta.

7. The disastrous effect of nursing upon the child, causing purpura, vomiting, purging and death.

Discussion.—Dr. GEO. ROSS said that this unusually interesting case had been for some time under his care at the General Hospital. Her health at the time of her confinement was such that she required the most careful attention; indeed even a very moderate loss of blood at that time would have been most dangerous, if not fatal, to the patient. He could offer no explanation for the absence of blood at the time of delivery. He had a case in private practice where there was a very slight sanguineous loss at the time of delivery. This was a case of profound anæmia accompanying valvular disease of the heart, with œdema of the legs, violent palpitation of the heart, dyspnœa and general cardiac weakness. The loss of blood here was almost imperceptible. He thought that Dr. Cameron's case showed that heredity is not a strongly marked feature of the disease.

Dr. ARMSTRONG suggested that the apparent absence of sanguineous discharge might be due to the small proportion of red corpuscles in the blood; a proportion of one white to four red corpuscles would hardly look like blood. As pregnancy seems to have made the patient much worse, it becomes a question whether it would not be advisable to prevent a future pregnancy.

Dr. ROSS thought the last question a very important one, but though deleterious to her

health, she survived, and has been remarkably well since. He did not think interference was called for in this case.

Dr. WILKINS agreed with Dr. Armstrong that the absence of blood may have been more apparent than real. In a case of acute pernicious anæmia, when there were only 1,050,000 red cells, the blood was but a very pale pink. If such a liquid were mixed with amniotic fluid, it would be very difficult to identify as blood.

Dr. JOHNSTON called attention to the close similarity in the condition of the mother's blood and that found in the placenta sinuses, and asked if the advisability of removing the spleen had been considered.

Dr. BULLER referred to the serious consequences to the infant which followed from nursing by the mother, and asked if the mother's milk had been examined.

Dr. CAMERON, in reply, said that the mother's milk was thin and acrid, and in a day or two dried up, so no thorough examination was made. Splenotomy was not considered advisable in the case as it is chronic. With regard to the question of inducing premature labor, he thought that nature would probably settle the question. The woman is again pregnant, but it is doubtful if it will go beyond the seventh or eighth month. If the alarming epistaxis were again to appear, he would be inclined to bring on an abortion to save the mother's life. The absence of blood at the birth was real, it was not apparent only, as the birth was almost a dry one; the placenta was glistening and the child quite dry, no fluid of any kind accompanied it. This case is alone in illustrating the effect of heredity; no mention is made of it in the literature of leukæmia.

Peculiar Cause of Blindness.—Dr. BULLER related a case occurring in his practice two years ago. A little girl had a squint eye quite blind; on examination, the optic nerve, or the place for it, showed a white patch with pigmented margin. He learned that when the child was born the labor was difficult and severe; instrumental aid was necessary. After birth it is said this eye was found out of the orbit, on the cheek, and was put back by the physician. Dr. Buller asked if any one knew of similar effects from the use of forceps.

Dr. CAMERON said he had seen the eye protruded almost beyond the lids from severe use of forceps not properly applied to the head.

Annual Meeting, October 14th, 1887.

J. C. CAMERON, M. D., PRESIDENT, IN THE CHAIR.

Drs. A. W. Campbell and J. H. B. Allen were elected members of the Society.

The Treasurer's report was held over to the next meeting.

The report of the Secretary showed that there were 18 meetings held during the year, at which 21 papers were read, besides reports of cases and exhibition of pathological specimens. The average attendance for the year was over 19.

Pathological Specimens.—Dr. JOHNSTON exhibited specimens from two cases of ainhum, sent by Dr. C. E. Gooding of Barbadoes. In each case a constricting band of fibrous tissue had formed about the proximal phalanx. The bones were extremely small and thin, and seemed atrophied. He also exhibited for Dr. Geo. Ross specimens from a case of chronic Bright's disease. The patient during life had shown marked dyspnœa. The pharynx, soft palate and epiglottis were enormously swollen through œdema, but from the absence of stridor it had been inferred that the chink of the larynx itself was not involved. At the autopsy the œdema was found not to actually involve the glottis, the rima being of normal dimensions, and both vocal cords and ventricular bands were free from œdema.

Dr. C. E. Gooding of Barbadoes was elected a corresponding member of the Society.

Periosteal Sarcoma.—Dr. JAMES BELL exhibited the thigh of a patient amputated at the upper third, and related the following history of the case: The patient whose leg was shown was a young man aged 18 years, a native of Montreal, and of Irish extraction. The growth began in April last as a small moveable nodule on the front of the femur, just above the knee. It grew rapidly and extended around the lower end of the femur. It was painless until recently, when he began to suffer from pains of a neuralgic character, chiefly in the foot (doubtless due to pressure on the nerves). As late as the 4th of June he walked to the Hotel Dieu Hospital, where he remained five weeks, and has never been able to walk since. He was admitted to the General Hospital about the middle of August, where Dr. Bell saw him for the first time. The whole lower end of the femur was then uniformly enlarged. It was clearly a periosteal sarcoma, and amputation was suggested. He took fright at the suggestion and went away,

but returned on the 30th of September. The growth had increased greatly in size during the six weeks which had elapsed since his leaving the hospital. His foot and leg were œdematous, and the neuralgic pains very severe. He was exceeddingly weakened, pale, and much emaciated, and his temperature ranged from 100-103° F. On Monday, Oct. 3rd, Dr. Bell amputated through the upper third of the thigh by the circular method. Since the operation his temperature has been perfectly normal, and his general condition has improved very much. The first dressing after operation was done on the eighth day. On section, the tumor was found to have involved the periosteum of the lower third of the bone, but had not invaded the interior. On examination, the epiphysis separated from the shaft and showed a diseased condition (apparently inflammatory) between these two parts.

Discussion. — Dr. JOHNSTON said that the microscopic section of the tumor, which was exhibited, showed the growth to be a round-celled sarcoma, showing here and there scattered among the round-celled tissue small transparent islets, within which a few branched cells could be seen (osteoblasts).

Dr. RODDICK thought that although on account of the man's condition it was probably wise to amputate in the upper third, as had been done, yet he thought that the surgical rule of removing the whole bone should, if possible, have been followed.

Dr. FENWICK did not agree with Dr. Roddick, and thought that in periosteal sarcoma, if the disease were entirely removed, there was no danger of recurrence in the stump, at least for a long time, and mentioned some similar cases which had occurred in his own practice.

Dr. BELL, in reply, stated that in the cases of this disease which had hitherto come under his observation, recurrence in the stump had never occurred, although in every case there had been an early recurrence in some of the fibro-serous sacs of the body—either the pleura, the periosteum, or the dura mater, chiefly the pleura.

RESOLUTIONS OF CONDOLENCE.

Moved by Dr. GEO. FENWICK, seconded by Dr. GODFREY :

Resolved, —"That the Medico-Chirurgical Society of Montreal has learned with deep regret of the sudden, although not unexpected, death of their late esteemed friend and associate, Henry Howard, M.R.C.S., Eng., the oldest member of this Society; that his regular attendance at our gatherings, his readiness to participate in discussions, and also the deep interest taken by our late associate in all scientific questions that came up before us, added greatly to the interest and attractiveness of these meetings; and that this Society desires to place on record the sense of the loss which has fallen upon them in his death."

Dr. GEORGE ROSS moved, seconded by Dr. T. G. RODDICK, "That the members of this Society extend to the family of the deceased their respectful sympathy in their present great bereavement, and that the Secretary be requested to forward a copy of these resolutions to the family of our late member, and also give copies to the city papers for publication."

Dr. PROUDFOOT then referred to the sudden death of Dr. Wm. Stephen in Buenos Ayres, and moved the following resolution seconded by Dr. T. G. RODDICK:

Resolved,—"That the members of this Society have heard with deep regret of the death of their late member and confrère, Dr. William Stephen, whose many good qualities and kindly disposition had endeared him to every member of the profession, and that a copy of this resolution be sent to the friends of the deceased."

ELECTION OF OFFICERS.

The officers of the Society for 1887-8 were then elected as follows :—

President, Dr. Perrigo. *1st Vice-President*, Dr. William Gardner. *2nd Vice President*, Dr. Guerin. *Secretary*, Dr. Ruttan. *Treasurer*, Dr. J. A. MacDonald. *Librarian*, Dr. T. D. Reed. *Council*, Drs. George Ross, T. A. Rodger and A. D. Blackader.

Progress of Science.

THE ADVANTAGES OF ANTIFEBRIN.

Mr. J. K. Murray recommends antifebrins as possessing advantages over other antipyretics on the following grounds (*British Medical Journal*, April 23, 1887) :

Antifebrin seems much more powerful than quinine, kairin, or antipyrin. It equals antipyrin in the duration of its effects, and in this respect surpasses quinine or kairin. It is only excelled in the quickness of its action by the external

application of cold. Its effects are evident within an hour, and they last from ten to twelve hours when a full dose has been administered. When administered for a long time, the dose must be increased. It produces profuse sweating and redness of the cheeks; it diminishes the pulse-rate, and distinctly increases arterial tension. He found no depressing effects follow its administration, even when full doses were given. Antipyretics belong to two great classes,—namely, those which diminish tissue-metabolism; and secondly those which increase the loss of heat. From the sweating it produces and the rise in arterial tension, one might conclude that antifebrin belongs to the second class as well as to the first one. This might explain the quickness of its action, as antipyretics of the second class act more speedily than those which diminish tissue-metabolism.

IMPLANTATION OF TEETH—YOUNGER'S METHOD.

By F. Abbott, M.D., New York.

The operation to which I have the pleasure of calling your attention for a few moments this evening, aside from its mechanical features, is very little understood, even by those who have performed it the greatest number of times. That teeth which have been for a long time out of the mouth, and, as supposed, entirely devoid of life, are inserted into artificial sockets made in the maxillary bones in the mouths of human beings, and there remain, become firm, useful, and to all appearances as good and healthy as the adjoining teeth in the same mouth, there can be no doubt.

Operations in the same direction, such as the transplanting of teeth, *i.e.*, the removal of a badly decayed tooth, or root, and the placing of a sound one, previously taken from the mouth of another person, into the socket, and there held by ligatures for a time, until union of the periosteum upon the root with the tissues of the socket has taken place, have been done with more or less success, occasionally, for some two hundred and fifty years, possibly for thousands of years even. However, the first published statement in reference to it, that I am aware of, is to be found in the work of Ambroise Paré, published in 1634. He says: "I heard it reported by a credible person, that he saw a lady of the prime nobility, who, instead of a rotten tooth she drew, made a sound tooth, drawn from one of her waiting-maids at the same time, to be substituted and inserted; which tooth in process of time, as it were taking root, grew so firm as that she could chaw upon it as well as upon any of the rest. But, as I formerly said, I have this but by hearsay."

I say the operation of transplanting has occasionally been done. It probably would have been performed—and would be at the present time—more frequently, but for the fear many people have of being inoculated with some dread disease, should they have a tooth taken from another person's jaw and inserted in their own. I judge, however, that a hundred years ago people were less fearful of such a catastrophe. Judging from the every-day manner in which the operation is spoken of, it would seem to have been very common. I find in a small book entitled "A Practical Essay on the Human Teeth," by Paul Eurialius Jullion, Surgeon Dentist, published in London in 1781, in a list of "his accustomed charges," the following:

	£	s.	d.
Transplanting a living tooth.....	5	5	o
Ditto a death tooth	.2	2	o

In the "Natural History of Human Teeth," by John Hunter; 1778, may be found a description of this operation, as well as that of replantation. It is from this work that the idea of "implantation" was first suggested to Dr. Younger. Hunter then recommended that a tooth be replanted when taken out through mistake, or knocked out accidentally, immediately, if practicable; if not, he would replace it even after it had been out of the mouth twenty-four hours, or "at any time before the socket began to fill up." To sustain his opinion that a tooth would become firmly fixed in its socket again, even after having been out of the mouth so long a time, he gives his own experience in replanting, and an experiment in implanting a freshly extracted tooth into a cock's comb as follows:

"I took a sound tooth from a person's head, then made a pretty deep wound with a lancet into the thick part of a cock's comb, and pressed the fang of the tooth into this wound, and fastened it with thread passed through other parts of the comb. The cock was killed some months after, and I injected the head with a very minute injection; the comb was then taken off and put into a weak acid, and the tooth being softened by this means, I slit the comb and tooth into two halves, in the long direction of the tooth. I found the vessels of the tooth well injected, and also observed that the external surface of the tooth adhered everywhere to the comb by vessels similar to the union of a tooth with the gum and sockets."

The replantation of teeth, *i. e.*, the replanting of teeth removed through mistake or by accident, and the removal of teeth for the purpose of enabling the operator more directly to treat chronic alveolar abscess, or difficult cases of pyarrhea alveolaris, and replacing them, has been practised by many dentists for a great number of years. Hunter speaks of replanting teeth removed through mistake or accident, as though it was at that time, and had been, a common practice. While the removal of teeth for the purpose of getting at and, treating disease is a more modern operation, and, as a rule, anything but satisfactory in its results.

It was while reading the experience, recommendation, and experiment above quoted of Hunter that the question suggested itself to Dr. Younger, that, if a tooth would grow fast again in its own socket after it had been out of it twenty-four hours

or more, and that a freshly extracted tooth would grow fast in an entirely foreign tissue such as a cock's comb, why would it not grow fast in an artificial socket made in the maxillary bone of a human being? Certainly the soil ought to be better suited to it than a cock's comb. After considerable reflection upon the subject he concluded to try it. This he did, I believe, first some three or four years ago, since which time he has done the operation some forty or fifty times (perhaps more), and, I believe, in the majority of cases, with marked success.

The operation is performed in the following manner: A tooth for the place is first selected, the pulp-chamber opened, and the pulp from that and the canal as perfectly removed as practicable, and the canal and drillhole are filled; it is then placed into an antiseptic solution (bichloride of mercury, 1 to 2,000). A cross is then cut through the gum to the bone, at the point where the socket is to be made to receive the tooth. The corners of the gum thus made are slightly dissected from the bone, and a trephine the size required is then inserted through the opening in the gum, and driven with the dental engine to within about a fourth of an inch of the depth desired; the remainder of the socket, owing to its tapering shape, is finished with different-sized and shaped burrs and reamers. When in the judgment of the operator, the socket is about the size and depth to receive the tooth, he tries it in; if the tooth fits as desired the operation is proceeded with, if not, the tooth is removed and the socket enlarged in this manner, cutting and fitting until the tooth stands in the socket in a correct position. The tooth is then removed and again placed into the antiseptic. The socket is now washed out thoroughly with the antiseptic, and the tooth placed in position. In some cases it is necessary to ligate it to adjoining teeth for a time, in others it is held as firmly as required by the impinging walls of the new socket. The gum over the tooth is then painted with equal parts of the saturated tincture of aconite root and the tincture of iodine. The pain attending the operation is caused chiefly by cutting through and dissecting up the gum, and the trying in of the tooth. This may readily be controlled by the application of a small quantity of muriate of cocaine crystals to the parts for a few minutes, before the cutting is done.

I may add that different kinds of instruments are used by different persons for making the socket, such as drills, spear-shaped burrs, etc., but those described are the kind Dr. Younger uses, and prefers to any others.

The question which more particularly interests us all, in connection with the operation of implantation of teeth, is, does a union of the bone and the periosteum upon the root of the tooth take place? So far it has been impossible to satisfactorily settle this question, as no one who has undergone the operation has felt disposed, after the lapse of sufficient time for the union to have taken place (if such be the case), to have the tooth removed even for scientific investigation. I have known of two, however, which have been taken out, one after three days and the other after five days from the time they were inserted, and it was thought in each case that a partial union had taken place.

From the fact that many of the apparently successful cases of Dr. Younger and others have been done with teeth which have been out of the mouth three, four, six, and in one of Dr. Younger's thirteen months, it would seem that it cannot be that any growing together of these tissues really occurs, but rather that the tooth is mechanically held in its new socket. I will now ask you, gentlemen, to examine a case which I have here, and as far as possible satisfy yourselves upon this point. The case is in the mouth of a colored man, Calvan Brooks; he resides in this city, is a hard-working, industrious man, but takes not the best care of his teeth.

Some four and a half years since, he had the right central incisor of the upper jaw extracted. After going without a tooth for some time he had a plate inserted with a tooth upon it (this, I believe, was renewed subsequently), which he wore, with more or less discomfort, until October 5, 1886, when at a clinic, a patient was wanted for Dr. Younger to operate upon. This man was requested to submit to it, which he did, and the operation was done as before described.

No tooth suitable for the place being at hand, one was obtained from the Colton Dental Association. When presented for insertion it was dry, so much so, that the enamel was as white as chalk, and the periosteum upon the root was apparently as lifeless as a bit of parchment. As near as could be ascertained, it had been extracted some three or four months previously.

In examining the case it will be observed that the tooth is even more firmly fixed in its new socket than the adjoining teeth, that the gum upon the labial surface and between the teeth presents a normally healthy appearance, while upon the palatal surface, on account of the removal of the amount of bone necessary for the reception of of so large a root, it has slightly receded. Its irritated appearance at that point is in a measure due to a slight deposit of tartar upon the neck of the tooth. It will also be observed that a thickening of the anterior plate of bone over the tooth has taken place, an apparent reformation of the alveolar process.

This tooth was not ligated to adjoining teeth, but was placed in position and allowed to take care of itself.

The instruments I have here are Younger's, with an improvement by Dr. W. W. Walker, of this city, who kindly loaned them to me to exhibit this evening. The improvement consists in a slight tapering of the trephine upon the outside. This prevents binding of the instrument while it is being driven into the bone. The burrs and reamers I have been unable to obtain. In summing up the subject, it would seem that there are but

two serious objections which can be offered to this operation, viz., the pain attending it and the danger of inoculation. As I have before stated, the former may be controlled, and it is believed that all danger of the latter is effectually removed by the use of antiseptics. This as yet, however, is an open question.—*N. Y. Medical Review, July* 9, 1887.

A CLINICAL STUDY OF ANTIPYRIN AND ANTIFEBRIN.

By G. Walter Barr, M.D., Bridgeport, Ill.

I am just convalescing from an attack of fever lasting five weeks, during which I made a careful study of antipyrin and antifebrin. The disease was neurasthenia complicated with malaria. My notes from observations taken every fifteen minutes for a long period of time would almost fill this journal, and therefore only generalizations are given.

The dose of antipyrin taken was at first 10 grains, which was increased gradually to 23 grains for a person of nervous temperament, who requires average doses of other drugs. Toleration of antipyrin increases after a week's use of the drug, and the dose must be constantly increased if it be used long.

Ten minutes after the ingestion of a dose of antipyrin in gelatin capsules, an aromatic warmth is felt in the stomach to a slight degree, and ten minutes later a glow seems to spread over the whole body, and is followed by sweating; and in a neurasthenic, irritable person, considerable tranquillity of mind ensued five minutes later. This psychological effect lasted half an hour.

In thirty-five minutes the temperature fell 1° F. The sweating gradually lessened, and ceased in two hours and a half after the drug was taken. In two hours from its ingestion the temperature had fallen about 3° F. This was regardless of the temperature when the antipyrin was taken, which varied from 101° to 105° F. However, it never lowered the temperature below the norm.

The above phenomena were constant. Almost constantly, about fifteen minutes after the dose was taken, the breath had an odor of ol. carui, sometimes very strong and often more faint. This lasted for about an hour.

The fever invariably began to rise in two and a half hours after the dose of antipyrin was taken, and the antipyretic effect was certainly only transitory. The after-effect was a general, indescribable feeling of greater *malaise*. The only effect on the pulse was its slowing, but the pulse was affected in great disproportion to the temperature, and became, on a basis of temperature, abnormally high, though absolutely lower. There was little or no change in the amount and gross appearance of the urine.

Antifebrin was used after antipyrin was begun, and at the same time alternately with the latter. The dose ranged from 5 grains to 13 grains. A tolerance was established to it. A number of times the same caraway odor on the breath was perceived, causing very interesting speculations as to the resultant of the corporeal chemistry upon both antipyrin and antifebrin. The aromatic, stomachic sensation was very seldom felt, the bodily glow and perspiration being generally the first effects noticed from antifebrin when the caraway breath is absent.

Antifebrin causes a fall of temperature in an hour or an hour and a half after its ingestion in gelatin capsules. The fall from one dose is about 4° F., though the norm was never passed in its downward tendency. The decline was maintained for an average of six hours, after which the temperature began to rise again. It has no permanent effect on the fever if its constant use for several weeks is a criterion. It gently stimulated the mind and affected the muscular system almost precisely like coca. I was several times as strong while under the influence of antifebrin as at other times, and intellectual indolence gave way to more energy. The tonicity of the pulse was increased and the rate slowed. Its effect on the pulse resembles that of convallaria majalis. Antifebrin is decidedly diuretic and less diaphoretic than antipyrin. There were no after-effects, not even the depression to be expected after the stimulation it produced. Once the dose of antifebrin had not the slightest physiological effect. The conditions were exactly the same as at other times, as near as I could discover, after very careful examination. An ordinary dose of antipyrin immediately acted as usual, and antifebrin afterwards did well. Perhaps some internal conditions hardened the capsule. Every dose of both drugs was taken in an empty stomach. My curiosity led me to wish for another failure that I might try another dose of antifebrin, but the opportunity never came. To sum up,—

ANTIPYRIN.	ANTIFEBRIN.
Lowers temperature in half an hour.	In an hour or more.
Effect lasts two hours.	Effect lasts six hours.
More diaphoretic.	More diuretic.
Depressing after-effects.	No after-effects.
Cerebral sedative.	Cerebral vaso-motor and muscular (?) stimulant.
Dose, 15 to 30 grains.	Dose, 5 to 15 grains.
Tolerance from continued use.	Ditto.

The above table will suggest the selective use of the two drugs. From the patient's point of view (which is really coincident with the physician's), antifebrin is much to be preferred in continued fevers, because the dose is one small capsule instead of three; the effect lasting so long requires one-third the number of doses; the tonic stimulation excels the depression and after *malaise*, and the cost is one-fourth that of antipyrin. The antipyretic action of antifebrin is as strong or stronger than that of antipyrin, and its only objec-

tion is its slowness of action. In isolation, and other cases, where a quickly-acting antipyretic is necessary, and when it has a specific action on pathology of a disease, as is claimed in rheumatism, antipyrin is to be preferred. Whenever one can wait an hour for the antipyretic action to begin, I greatly prefer antifebrin, and I know the patient also. I believe its stimulant or tonic effect to be very valuable in weak patients.

THE THERAPEUTICAL VALUE OF BLOODLETTING.

But a few years ago it was customary to bleed too frequently, and almost every morbid condition was thought to demand bloodletting. Practically, we never resort to the measure now, perhaps because we do not consider to their full extent the advantages to be derived from it. From one excess we have fallen into the other. The disciples of the lancet bled according to a system; it was a formula. Their adversaries abstained by convention, not always by conviction; that, too, was a formula. There was error on either side. Therapeutical truth does not lie in a mere formula; it is to be found in facts proved clinically and experimentally, not in mere systems. It is in some such strain as this that M. Eloy calls attention, in a recent number of the "*Gazette hebdomadaire de médecine et de chirurgie*," to an important essay presented to the Belgian Academy by M. Fredericq, of Liège. The essay is a compendious summary of our knowledge of the physiological action of bloodletting, and embraces an attempt to establish definitely all the indications and contra-indications of this powerful therapeutical agent. Incomplete as it is, and as all such efforts must ever be, it nevertheless abounds in proofs that we ought to throw aside the prejudice occasioned by the abuse of bloodletting in the past, and once more avail ourselves of a measure capable of rendering such valuable aid. What there is still to condemn, in spite of the efforts made at times to re-establish it, is the bleeding in hæmorrhagic proportions resorted to by those enthusiasts who have been styled ironically "the great bleeders of past times."

As was said by Marshall Hall and some of his contemporaries, bleeding modifies more or less lastingly the respiration, the temperature, and the circulation, and affects the nutritive changes still more profoundly. The relaxation of the respiratory movements that occurs on opening a vein has been accounted for in many different ways. A hæmorrhage, provided it is not excessive, does not notably diminish the quantity of blood in either the general or the pulmonary circulation, the withdrawal of from half a pint to a pint, causing on an average the loss of from one two-hundred-and-fortieth to one one-hundred-and-twentieth of the weight of the body. It does, however, change the functional relation between the lungs and the heart, as has been proved by the elaborate researches of Embrodt and more recently those of Fredericq. The last-named observer has shown that a fall of pressure amounting to the relation of 1 to 2, or even 1 to 3, takes place after a loss of blood hardly equivalent to one one-hundredth of the weight of the animal; and Arloing and Vinay have not only confirmed this, but have proved in addition the permanence of the effect, as shown by the persistence of this lowered tension after the closure of the vessel.

As regards the influence of bloodletting on the temperature, putting aside the incontestable fact that great hæmorrhages produce a very considerable lessening of the heat of the body, we have Heidenhain's demonstration that the fall and rise of the thermometric column are synchronous with the corresponding changes in the mercury of the hæmodynamometer. A plausible deduction from this would be that bloodletting is justifiable in sthenic inflammations attended with hyperpyrexia, but a little reflection will show that it is not a deduction fully borne out. What we have most to fear from fever is its pernicious effect on nutrition, but bleeding also deprives the body of its tissue-forming elements; hence the ultimate results of both are the same. As has been said by Lorain, the fall of temperature following hæmorrhage is only temporary; it is a mere peripheral cooling. A remedy truly worthy to be called antipyretic, however, should be capable of affecting the heat-producing function, not merely axillary, vaginal, rectal, or buccal temperature—since the danger of the hyperpyrexia does not lie so much in the high temperature *per se* as in the nutritive changes of which it is merely the outward expression.

Bleeding modifies respiration. Is it indicated in pulmonary affections? Depletive bleeding should, according to the theory of those who employ it, diminish the initial hyperæmia of inflammation of the lungs by enabling the pulmonary to profit by a lessening of the general circulation—a bald hope, in the face of the fact, experimentally proved, that bleeding, within therapeutic limits, does not sensibly lessen the quantity of the blood. On this assumption, nevertheless, rests M. Bucquoy's recommendation to bleed in the initial stage of pericarditis, accompanied by grave phenomena—always, however, on the condition of its early employment in sufficient abundance, the fact being at the same time borne in mind of the danger incurred by the inherent feebleness of the cardiac muscle in this disease. On the same ground, too, M. Peter advises bleeding in cerebral congestion in robust and vigorous individuals, and M. Bouveret insists on the good results to be obtained by bleeding in capillary bronchitis and in emphysema. If we take this view, we can readily appreciate the value of bloodletting in the treatment of cardiac affections; indeed, the results obtained with it by some modern clinicians, such as Bucquoy, Jaccoud, Peter, Henri Huchard, and others, have at times resembled resurrections. In cardiac affections accompanied by extreme feebleness of the heart's action, bloodletting enables us to relieve the organ of a surcharge of blood exceeding its motive power. It is thus,

as has been shown by Huchard, in the "*Union Médicale*," that digitalis finds its full action when its administration has been preceded by copious bleeding; the aim being to diminish the resistance of the peripheral portion of the circulatory apparatus and the embarrassment of the right heart. It re-establishes the equilibrium between the motive power and the mass to be moved. The therapeutic action of the heart tonics consists in augmenting the contractile force of the heart, and in reducing the volume of the blood by setting up diuresis. Drastics accomplish the latter part by increasing the intestinal secretions; bloodletting does it in a more direct way. Its employment is therefore rational in the treatment of cardiac affections, accompanied by insufficient contractions of the heart; and, according to Bucquoy, it is never in this way the cause of anæmia or irremediable cachexia.

What are the indications for bloodletting in over-action of the heart? In these cases, the heart's action surpasses its aim; the vascular pressure is augmented, and the patient is in danger of congestion, cerebral or pulmonary. The indications are to re-establish the circulatory equipoise. A vein is opened, and the systems are mitigated, to return after the renewed filling of the vessels by interstitial absorption. Shall we repeat the bleeding? Yes, if the general nutrition permits, and if other remedies fail. There is another class of cases—affections of the aorta, including aortitis and aneurysm—in which excessive vascular tension plays a part. Here conservatism is demanded, but there is no particular stage when the measure is specially applicable.

To sum up: Bloodletting should not fall into utter disuse. Weighty accusations have been brought against it, but let us allow only what is confirmed by modern scientific research—namely, its powerlessness in inflammations and in fevers, its dangers in chronic affections, and the obscure rôle it plays in neuroses and in eclampsia; while physiology, in spite of its gaps, teaches the therapeutist that the blood is always being renewed, that the stability of the circulation is not hindered by a moderate bloodletting, and that although a powerful modifier of the circulatory equilibrium, this agent has no other dangers than those that arise from its over-abundant employment, its excessive repetition, and its inopportune use. Physiology teaches us also that philosophy of this therapeutical measure, around which too much majesty and solemnity have gathered, is found not in systems, but in modest language, "Use, do not abuse!"—*N. Y. Medical Journal.*

THE PROPER EMPLOYMENT OF PREPARED FOODS FOR INFANTS.

By Victor C. Vaughan, M.D., Ph. D.,
Professor of Physiologial Chemistry in the University o Michigan. f

The feeding of infants, which for any reason are denied the mother's breast, has been, and continues to be, a question of great interest. Even the matter of the selection of a wet-nurse, where both money and opportunity are abundant, is one of the greatest importance, and, as all know, this method of securing nourishment for the child is not free from danger. First, there is often the dread that the nurse will convey to the child some constitutional disease. Then the nurse can hardly be expected to have that watchful solicitude for the child's health which is the peculiar characteristic of its own mother; and the most trusted servants have been found quieting the baby with opiates, and even narcotizing it with alcohol. Again, the nurse who offers herself only on account of the demands of poverty must often leave her own child to be fed artificially, and the question of the importance of infant feeding is only transferred in its application from the child of the mistress to that of the servant. Lastly, in a large number of cases, from want of a wet-nurse, obtainable at any price, or from want of money, the child must be fed artificially.

When the artificial feeding becomes necessary, of what shall the food consist? In this country, at least, we cannot obtain the milk of the ass or even that of the goat, in quantities sufficient to be used by many. I think that all will agree that cow's milk must continue to be the chief source of nourishment for children, and in a recent article in this journal. I endeavored to formulate certain rules for the better care of milk. As soon as the consumer demands it, the dealer in milk will conform to those or similar rules. The result of the application of the rule will not be to injure the trade of the dairyman; but the reverse will be true, inasmuch as his milk will be greatly improved in quality, and will command a better price.

In the article referred to I urged that no milk should be given to the child sick with cholera infantum or other summer diarrhœas. This prohibition applies to all prepared foods containing milk or to which milk must be added. Recently I obtained all the infant foods I could find in the market, prepared them according to the directions accompanying them, placed them in four-ounce bottles, making a duplicate test for each food, added some of the ferment which I had found would produce tyrotoxicon in milk, and kept the tightly stoppered bottles at a temperature of 38 ° C. for six hours, then tested the contents of each bottle for the poison, and found it present in every one of them. It should be clearly understood here that the poisonous ferment was added to the foods.

This experiment fulfills the conditions which would exist were a child sick with cholera infantum to be fed with one of these foods; provided always, of course, that my theory as to causation of this and kindred diseases in children is true. Some preparations of peptonoids and peptones, treated in the same manner as the infant foods, failed to develop the poison, at least, in quantities sufficient to be recognized by any chemical test. I may add here, that a similar experiment was made with milk which had

been boiled, and in this also the poison was developed. But in the boiled milk to which no ferment was added, as well as in the unboiled milk to which no ferment was added, the poison did not appear, at least within the six hours.

Now, from these experiments, I conclude that foods prepared from milk, or to which milk be added, are not suitable for children who are suffering from the summer diarrhœas. Just why the poison should appear in the milk preparations and not in the peptonoids, I cannot say. There are several possible explanations. The growth of the germ may simply be more rapid in one than in the other, and the difference in the development may be only one of time; but a difference of this kind is sufficient for all practical purposes.

Then have the prepared milk foods no legitimate use? I think they have, and desire to point out what I consider to be their proper employment.

Even under the most favorable conditions, milk can be kept unchanged only for a short time in summer. There is the same reason for the drying of milk and the preservation of its solids that there is for the curing of meat or the canning of fruit. The dried milk solids may be transported any distance and kept for any reasonable length of time, if properly prepared, without undergoing putrefactive changes. But they are to be used with children free from the summer diarrhœas rather than with those suffering from those complaints. Where the source of the milk supply is doubtful, a properly prepared milk food would be much more reliable than the raw milk. Besides, with any dilution or addition that may be made, cow's milk cannot be rendered identical with the milk of woman.

Can the milk of the cow be rendered more nearly identical with that of woman than it is by the simple dilution with water and the addition of milk sugar? All chemists, I think, agree that woman's milk contains more peptone than does the milk of the cow. Kirchner, who has given much attention to this subject, and has experimented largely, believes that the difference in the digestibility of milk from the cow and that from woman is wholly due to the larger amount of peptone in the latter. I cannot see, therefore, why the casein of the cow's milk should not be partially digested. That it should not be completely digested, I think there can be no question. It is certainly unscientific to feed any one for any length of time upon peptones altogether; especially is this true of children. To relieve the gastric juice altogether is to diminish its secretion. The muscle of the arm, the brain, and, indeed, every part of the body, is weakened by inactivity. The stomach can be no exception to this rule. It must have something to do, or will soon be unable to do anything. There may be, and doubtlessly are, exceptional cases, in which the temporary administration of peptones exclusively is desirable. But these are exceptional cases, and the administration of the completely digested food should be only temporary. Certainly these cases do not include healthy children. For these reasons I generally prefer the partially digested meat preparations to the peptones.

If this be true, will it not be sufficient for the nurse to digest partially the cow's milk as it is fed to the child? There are these objections to giving advice of this kind. If the source of the milk is doubtful, or if it has become contaminated by unclean vessels, or if putrefactive changes have already begun in it, the process of artificial digestion will not destroy the poisonous ferment. Indeed, the temperature at which the milk is kept during the artificial digestion will only favor the development of the poison. We have Dr. Holt's evidence that the use of peptonized milk is not to be recommended in summer diarrhœas. The artificial digestion, as carried out by the nurse, is not likely to be scientifically done. It will probably be neglected or amount to only a form, or it may be overdone, and the taste of the milk spoiled, and too great a proportion of the casein converted into peptone. If partial artificial digestion is to be practised at all, and I see no reason why it should not be, it should be done under competent direction, and when the milk is perfectly fresh.

Let us see what some of the most important properties of this prepared milk food should be. It should not contain any vegetable matter which is difficult of digestion.

This prepared milk food should be sufficiently nutritious in itself, and, consequently, should not require the addition of milk. In the use of all those prepared foods, to which the addition of milk is necessary, the same danger of introducing the poisonous ferment into the alimentary canal exists as in the use of the raw milk. Many of the prepared foods contain such small amounts of proteids that the addition of milk becomes necessary. They should contain a larger per cent. of milk solids, obtained by the evaporation of milk in vacuo.

Attention should be given to the amount of inorganic salts, especially of lime and phosphoric acid, in a prepared food. A proper amount of these substances is as necessary to the health and growth of the child as are fats, proteids, and carbohydrates.

The carbohydrates present in such a food should not be in the form of grape-sugar, but as milk sugar and dextrine. The grape-sugar is not supposed to have any specially injurious or poisonous properties; but it ferments too rapidly, and for this reason is objectionable. By roasting wheat flour its starch is converted into dextrine, and this roasted flour mixed with milk solids, obtained by the evaporation of milk in vacuo, forms a food sufficiently nutritious, and one which may be kept indefinitely without putrefactive changes occurring in it.

Prof. J. Lewis Smith, in his excellent work on *Diseases of Infancy and Childhood*, speaks well of the roasted flour; and this, added to milk solids, makes the best infant food known to the writer.

THE TREATMENT OF VARICOSE VEINS OF THE LEG.

Ordinarily, persons afflicted with varicose veins of the leg expect nothing more than some amelioration of their condition, or some means of getting along with it. The trouble is regarded as incurable, just as a hernia would be. For a hernia a truss is worn, and for varicose veins an elastic stocking is generally used. In many cases nothing whatever is done for varicosities of the leg, and the sufferer has to bear the distress, and run the risks of his condition as best he can.

If the veins are not very much enlarged, this may not be an unwise plan. But in a case in which the varicosity is very pronounced, the risks are too great to warrant letting the veins alone. The risk of ulceration, of rupture and hemorrhage, of phlebitis, of extension of the varicose condition, is so great that something ought to be done.

This something should consist in the adoption of proper medicinal, mechanical, or surgical treatment. Under the head of medicinal treatment may be classed the use of general tonics, the relief of constipation, and the employment of drugs, which act upon the walls of the veins Of these, none now enjoys a better reputation than hamamelis, strongly recommended to the profession for this purpose by Dr. J. H. Musser a few years ago. It can be given in teaspoonful doses of the fluid extract three or four times a day.

Mechanical treatment consists in the use of a well-fitting elastic stocking, which should extend from the heel to a point well above the highest dilatation, or of a carefully applied bandage. Martin's rubber bandage serves a good purpose, if well put on and if kept clean. It usually produces free sweating, but the discomforts of sweating can be much lessened by putting the bandage on over a clean white cotton stocking.

Surgical treatment of varicose veins consists in injecting them with some coagulating substance, in ligating them, or in excising a portion of them.

If injection be selected, it is best performed as follows: The circulation is controlled with an Esmarch's rubber tube, applied round the leg above the point where the injection is to be inserted, while the patient is standing up. At first only a few turns should be put on, in order to fill the veins up, and then the tube should be wrapped tight enough to cut off all the circulation. Then a single drop of pure carbolic acid should be injected into the veins at several points about an inch apart, and the site of each puncture should be touched with collodion and covered with a little cotton and collodion.

The Esmarch's tube should be left in position for fifteen minutes, and then be gradually removed, so as to avoid the risk of having an embolus swept into the heart. After the operation, the patient should keep his bed for at least a week.

The operation of ligation of varicose veins of the leg is best performed by distending them fully, and then slipping a strong cat-gut thread carefully under them and over them—passing in and out at the same openings on each side—just as is done in ligating varicose veins in the scrotum.

The operation of excision is the most radical and the most curative of all. To perform this operation, it is necessary to distend the veins with a bandage, to make a clean cut down upon them, and to pass a strong cat-gut ligature around the lowest point. The vein must then be seized above the ligature with a strong pair of forceps, and lifted up and cut off below the forceps. It is then stripped up, each radicle met with being ligated and divided, until several inches are clear, when the main vein is to be ligated at the highest accessible point, and cut off below the ligature. The wound should be treated aseptically, closed up, and covered with an aseptic dressing.

Several veins may be operated upon in this way at one time, and even both legs may be operated upon at once. After the operation the patient's leg, or legs, should be bandaged, and he should be confined to bed for eight or ten days.

This operation we can recommend to our readers, if it be performed with care and with correct aseptic precautions. By this we do not mean listerism, but the improved aseptic method of the present day.—*Philadelphia Medical and Surgical Reporter.*

THE INFLUENCE OF TEA, COFFEE AND COCOA ON DIGESTION.*

Dr. James W. Fraser, in a recent number of the *Journal of Anatomy and Physiology*, has recorded the results of an interesting series of experiments on the action of our common beverages on stomachic and intestinal digestion. His observations will, in the main, agree with that which is now given by our best authorities in cases of dyspepsia; and we are glad that experimental inquiries afford so strong a basis of support to empirical clinical observations:—

1. That it is better not to eat most albuminoid food stuffs at the same time as infused beverages are taken, for it has been shown that their digestion will in most cases be retarded, though there are possibly exceptions. Absorption may be rendered more rapid, but there is a loss of nutritive substance. On the other hand, the digestion of starchy food appears to be assisted by tea and coffee; and gluten, the albuminoid of flour, has been seen to be the principle least retarded in digestion by tea, and it only comes third with cocoa, while coffee has apparentlya much greater retarding action on it. From this it appears that bread is the natural accompaniment of tea and cocoa when used as the beverages at a meal. Perhaps the action of coffee is the reason why, in this countrv, it is usually drank alone or at breakfast, a meal which consists much of meat, and of

* London *Lancet*, May, 1887.

meats (eggs and salt meats) which are not much retarded in digestion by coffee. 2. That eggs are the best form of animal food to be taken along with infused beverages, and that apparently they are best lightly boiled if tea, hard boiled if coffee or cocoa, is the beverage. 3. That the casein of the milk and cream taken with the beverages is probable absorbed in a large degree from the stomach. 4. That the butter used with bread undergoes digestion more slowly in presence of tea, but more quickly in presence of coffee or cocoa; that is, if the fats of butter are influenced in a similar way to oleine. 5. That the use of coffee or cocoa as excipients for cod liver oil, etc., appears not only to depend on their pronounced tastes, but also on their action in assisting the digestion of fats.

THE USE OF INDIGO AS AN EMMENAGOGUE.

Dr. S. T. Yount, of La Fayette, Ind., in a paper read before the Tippecanoe County Medical Society, recommends very highly the employment of indigo as an emmenagogue. He writes: "It is perfectly safe, thoroughly reliable, and painless in its action. It is insoluble in water or alcohol, but readily dissolves in strong sulphuric acid. This so changes its character that it is then readily soluble in water without changing its color.

"It is odorless and tasteless, and may be given in doses of ʒ j. to ℥ ss. The great difficulty is the nausea and vomiting which the crude drug produces when given in very large doses. There are three varieties of the crude drug: Bengal, Turkey, and Chinese.

"The Bengal is richest in coloring matter, containing about fifty per cent., and inasmuch as the virtue resides in the coloring matter, the best effects are obtained from this variety. As an emmenagogue it has been used in my practice about a year and a half. My attention was first directed to it on one occasion when I was called to remove a retained placenta in a case of abortion at the third month. Naturally inquiring what had been taken to produce the abortion, I was told that the lady had taken indigo in teaspoonful doses three times a day, that she had taken it several times, and always with a most satisfactory result to her.

"She informed me at the time that it always produced great nausea and watery discharges from the bowels. Acting on the suggestion offered by this case, I tried it in many and various cases. In one case, where a young lady, aged eighteen, had missed for thirteen months, the menses returned after taking the crude indigo for two weeks; but the disgust and nausea produced by the bulky powder rendered her unable to continue it longer, and she menstruated three more months; then they stopped again. After using the remedy for eight or nine months in this crude state, I set about to find some way of condensing it, or rendering it less bulky, for it is the bulk of the dose, not the remedy, that disturbs the stomach and disgusts the patient. About a month later Mr. O. G. Zerse, an apothecary of La Fayette, turned over to me a concentrated extract, as he called it, five grains of the extract equalling twenty-six grains of the crude drug. I have since then used it in forty-eight cases of amenorrhœa, of all kinds and causes, with but three failures, and a colleague has used it in six cases without any failure. To test its effect I have given the remedy in the amenorrhœa of phthisis, and have always had a definite result, namely, the appearance of the menses, the menses stopping again when the remedy was stopped. The effects with the crude drug and the concentrated preparation are identical, except that the nausea does not occur when the extract is used. The menses come on painlessly and very suddenly. There is no warning given. In thirty cases the effects occurred about two days after the last dose, the menses coming on without any warning, gushing out and running often to flow. The hemorrhage in none of the cases was dangerous or alarming During the administration of the drug the os uteri becomes soft and patulous, admitting the end of index-finger. There is often a serous discharge from the vagina. The urine becomes of a brownish-green color and offensive odor. The stools are of a bluish color. The passages are watery and offensive.

"To summarize, indigo is an emmenagogue of decided value in any case. It should not be given to pregnant women. It should not be given where there is an irritable stomach. It should not be given in cases where there is a history of a previous pelvic inflammation. It should not be given in cases there where is marked cerebral anæmia. It may be given in doses of ʒ j. to ℥ ss., two or three times a day, of the crude drug, or in five-grain doses of the concentrated extract. The powder of the crude should be given mixed with a little subnitrate of bismuth, and the patient should drink a little whiskey afterward. In cases where given continuously for a long period, give tr. gentian comp. after each dose. Give the concentrated extract in capsules mixed with extract of gentian and subnitrate of bismuth." —*N. Y. Medical Record.*

TREATMENT OF CHOLERA INFANTUM IN THE NEW YORK INFANT ASYLUM.

Dr. L. Emmett Holt holds that as pure air and proper feeding are the most important things in prophylaxis, so they are the most important in the treatment of this disease. Sick or well, there is no food for a baby that compares with good breast milk. If this is being used, or can be obtained, the quantity only needs to be regulated. Not more than half the child's allowance when well should be given; and if the stomach is very irrit-

able, all food should be withheld for half a day or a day, giving nothing but toast-water or thin whey to allay thirst. If a child has been weaned, or good breast milk cannot be obtained, cow's milk had best not be trusted, as it is so easily changed in hot weather, especially in cities and among the poor. In the country, where fresh milk can be obtained twice a day, it may not hold; but in the city, children certainly do better when milk is withheld, and other articles not so prone to fermentation are given. Chicken, beef, and mutton broths, expressed juice of roast beef or steak, wine-whey, white of egg shaken up with water, rice-water, barley-water, or the malted foods, koumyss, and in some cases raw scraped beef, are articles which may replace milk.

The first indication in every case, except true choleriform diarrhœa, is to clear out the bowels as completely as possible, by a good dose of castor oil, or by one or two grains of calomel in the form of tablet triturates. This will be sufficient to cure a large number of the milder cases, if taken early, provided the feeding rules laid down are carefully followed. In more severe cases, and in those of longer standing, a simple clearing out produces only temporary improvement; further measures must be taken to restore healthy action of the alimentary tract and stop decomposition. Salicylate of sodium, in grains j–ij doses, every two hours, or naphthalin in double the amount, we have found the most useful.

High temperature should be reduced by baths or cold sponging. It should not be forgotten that this may come from septic absorption from the bowels; if the temperature has risen coincidently with a great reduction in the number of discharges, a brisk cathartic will prove the most efficient antipyretic.

Cerebral symptoms may likewise be toxic, and, if so, should be treated in the same manner.

The object of treatment is not simply to arrest the discharges, but to restore their healthy character. Hence, opiates are not admissible at the outset, and never during the course of the disease when the discharges are foul and offensive. The retention in the intestinal canal of such matters, loaded with bacteria, can only result in harm.

Last summer, in this Asylum, a trial was made of the method of irrigation of the bowels with simple water or weak astringent solutions, in twenty-one cases. Only eleven were cured by this treatment alone. Although the results were not so gratifying as was anticipated from the accounts published in Germany, still some very bad cases did surprisingly well under it. It is certainly deserving of a more extended trial, as a valuable addition to our therapeutics.

True choleriform diarrhœa was treated in a few cases by hypodermatics of morphia and atropia; one or two yielded quite promptly; others, no more severe apparently, were uninfluenced by it.—*Med. News.*

THE PROPER SELECTION OF ETHER OR CHLOROFORM AS AN ANESTHETIC.

Dr. A. P. Gerster read a paper upon this subject before the New York Academy of Medicine, April 7, 1887. In approaching this subject, he said it was necessary to cast away all prejudice, considering it in a spirit of candid inquiry In the first place, it was to be borne in mind that both ether and chloroform were dangerous anesthetics. Researches with the aid of the sphygmograph, demonstrating the effect upon the pulse, had shown, however, that chloroform was infinitely the more powerful agent of the two. Still, this fact did not afford ground for the universal condemnation of chloroform, though it rendered greater caution necessary during any operation in which it was used. But, while chloroform was the more powerful agent, and consequently attended with more danger at the time of the operation, its employment was not followed by the secondary affections of the lungs and kidneys which were apt to result from that of ether.

The statement frequently made by partisan zealots, that ether is always and under all circumstances safe, was not true. In hospital practice it was found that in a considerable number of patients, particularly those addicted to the use of alcohol, it was exceedingly difficult to produce profound anesthesia with this agent, and in such cases, from the effect of the excessive and irritating mucous secretions excited, catarrhal or septic pneumonia was very apt to ensue. Admitting that, on the whole, ether was safer than chloroform, Dr. Gerster proceeded to speak of the manner of administration, and recommended, as superior to any other, that by means of Ormsby's inhaler. He then went on to say that ether was contraindicated in all affections impairing the renal functions, a circumstance the credit for first pointing out which belonged to Dr. Emmet. Having referred to cases showing the danger of ether when nephritis was present, he expressed the opinion that an examination of the urine should be made in every case before administering an anesthetic, except where the urgency of the circumstances precluded this; when, if Bright's disease was discovered, chloroform was to be preferred as the safer agent.

Ether, he said, was also contra-indicated where, in the aged or in young children, or generally in the feeble, there were catarrhal conditions of the air-passages. Having related three cases of his own practice, in which he claimed that fatal or dangerous pneumonia was set up by ether in patients suffering from cancer, he stated that, in the year 1886, three cases of pneumonia occurred after the administration of this agent in the Mount Sinai Hospital in, two of which the patients died, while in the third recovery took place. There were also five cases of severe bronchitis, arising under similar circumstances, reported during the year. Dr. Gerster said he had four more cases in

his notes, but, as these operations were performed either upon the trachea, larynx, or lower jaw, it was possible that the entrance of blood into the air-passages might, perhaps, have caused the trouble, and he would not therefore insist on these. As anesthesia by ether was dangerous in young children suffering from affections of the air-passages, chloroform was always to be preferred under these circumstances, although in healthy children ether was borne well.

The third class of patients in which chloroform was to be preferred was those who could not be satisfactorily brought under the influence of ether. In the incomplete anesthesia caused by it, there was an amount of muscular rigidity remaining, which constituted an inseparable difficulty in quite a large class of cases. Not only loss of sensation, but total relaxation of all the voluntary muscles, was indispensable in many operations; and, in spite of proper preliminary precautions, and the greatest amount of care in the administration of the anesthetic, in eleven cases out of one hundred and twenty-five, at the Mount Sinai Hospital, it was found impossible to produce with ether the complete anesthesia required. In all these instances, however, a change to chloroform was attended with the happiest results. Recapitulating, he said, then, that ether should not be used as an anesthetic in any case, (1) where acute or chronic nephritis is present, or is suspected to exist; (2) where there is any chronic pulmonary affection, especially in the aged or feeble; (3) where ether will not produce the complete anesthesia and relaxation indispensable for the successful performance of the operation in question.

Dr. Gerster then went on to say that, while in general the administration of chloroform undoubtedly required greater caution than that of ether, there was only one contra-indication against chloroform, namely, the presence of a fatty or weak heart. In the hands of a careless giver of anesthetics chloroform was, no doubt, more dangerous than ether, but Bright's disease offered no contra-indication to chloroform. In eight years' hospital experience he had met with but two cases in which pneumonia followed the administration of chloroform, and in both of these the probable cause of the pulmonary trouble was the entrance of blood into the bronchi. The existence of valvular disease of the heart, again, was not a contra-indication to chloroform, provided there was satisfactory compensation by muscular hypertrophy. On the other hand, if the heart were feeble from any cause, chloroform should never be used. In anemia, also, ether was, as a rule, safer.

He next spoke of the special danger of chloroform in cases of marked nervous depression, and said it should never be used when the patient was in a state of fright. It was a fact that most of the deaths from its use were in cases of slight operations, and he thought this was explained by the dread of the operation or the anesthetic. In severe operations the patient generally nerved himself for the ordeal, and hence there was less danger from this source.

On February 10, 1886, Thomas R., aged thirty-two years, consulted Dr. Gerster at his office, for a tumor on the lower part of the face. When an exploratory incision was proposed, he became so much alarmed that he begged for chloroform, which was not given at this time. Five days later he was admitted to Mount Sinai Hospital as a private patient, and on the 17th Dr. Gerster proceeded to operate on the tumor, which proved to be a glandular abscess. He subsequently learned that the patient expressed the conviction that he would never leave the operating-room alive. When two drams of chloroform had been administered, by means of Esmarch's mask, opisthotonos suddenly occurred, the pupils became dilated, and the abdominal muscles were found to be rigid. The pulse ceased, and within a minute the patient was dead, all efforts at resuscitation proving futile. The experience gained in this case, he said, had led him to administer stimulants and a small dose of morphia prior to operating in all cases, where the patient was not in perfectly good condition, and he would now never give chloroform to any one who was the subject of deadly fear. In every instance in which it was feasible, a careful physical examination should be made, and the probable prognosis duly announced to the patient or his friends before proceeding to employ this anesthetic. —*Boston Medical and Surgical Journal.*

THE COMPARATIVE ACTION OF ANTIPYRIN AND ANTIFEBRIN.

Although antifebrin has just come into use as compared with its fellow, antipyrin, little doubt exists that it is preferable to the latter. Aside from the results obtained by comparative tests at the bedside, more particularly by Eisenhart, as reported in *Münchener Med. Wochenschrift*, 1886, No. 47, and by Cahnand Hepp in *Berlin Med. Wochenschrift*, 1887, Nos. 1 and 2, the general profession has not reported as many untoward effects from its use as from antipyrin, while its cheapness, small dosage and reliability have already given it a place of high esteem among clinicians. Both Eisenhart and the French observers reach the conclusion that five grains of antifebrin are equal to twenty of antipyrin, and although this is somewhat below the estimate made by the profession in America, it so nearly approaches the results obtained here that the matter may be considered as settled. It will be remembered that the chief objection to antipyrin was that it was capable of causing profound collapse, as well as other minor, but scarcely less alarming, symptoms, and it should not be forgotten that antifebrin may produce the same result, if given in large doses in susceptible cases.

Many observers have noted the appearance of an exanthematous rash under its use, and *Munchener Med. Wochenschrift*, 1887, No. 3, reports cases in which deafness and mydriasis occured. These instances of untoward effects produced by antifebrin are fortunately sufficiently scattered to permit us to use the drug with great freedom. Indeed, the only manner in which the two drugs act identically, other than as antipyretics, appears to be the profuse sweat which they produce about the time of their absorption into the circulation.

Sudden cardiac failure has been produced by both drugs, and in a simple case of pneumonia, in which antifebrin was administered, which has come to our knowledge, the patient, apparently convalescing, while sitting up to bed talking to a friend, suddenly dropped back dead on the pillow. It is but just, however, to state that the patient had been a sufferer for many years from disease of the mitral valve, and as no post-mortem was allowed, the exact cause of death cannot be stated; although the attending physician, a man of good judgment, ascribed it to the drug, with sufficient reason in his own mind to prevent his using it but carefully a secone time.

The experience of the profession in this city has certainly engendered the belief that in a very large proportion of cases the newer antipyretic may be used with advantage in place of antipyrin, and unless some as yet undetected evil influence exerted by it is discovered, it will, without doubt, remain one of our chief aids in the reduction of abnormally high temperatures—*Med. News.*

THE TREATMENT OF COLDS.

Dr. Whelan, R. N., in a short article on the treatment of colds, says: It is recognized generally that catarrhs are excited *de novo* by exposure to wet, cold, and draughts; most frequently they develop in delicate and in highly neurotic individuals. When once a catarrh is properly established, the affected person's breath is infectious, in the acute stage of the disease at least. The question arises, What is the nature of the affection? 1. Is it a specific poison comparable to that of the infectious fevers? 2. Does the affection start as an idiopathic inflammation and develop a specific poison which is given off by the breath? 3. Is it of nervous reflex origin purely? An epidemic of influenza would be explained by supposing within large tracts of country all catarrhal micrococci become suddenly virulent, owing to some climate or telluric fostering cause, or to some law of heredity, or evolution of the organisms themselves. The usual coddling treatments of colds in an ordinary healthy person should be strongly condemned; there is a deal of wisdom in the saying "Starve a fever, feed a cold." A person with catarrh should take an abundance of light, nutritious food, and some light wine, but should avoid spirits and tobacco. In the very old or very young, or in cases where the general health is not good, due care must be taken, and above all things, depressants should be avoided. The author recommends as a specific, both as a prophylactic and therapeutic remedy, the following prescription: R quin. sulphatis, gr. xviij; liquor arsenical., M xij; liq. atropinæ, m. j; extract. gentian., gr. xx; pulv. gum acac., q. s. to make twelve pills. One of these pills should be taken every three, four, or six hours, according to circumstances. If these pills are commenced in the early stage of a common cold, when the affection is confined to the nose and pharynx, the affection will be nipped in the bud. At first one pill should be taken every three or four hours: later on every six hours. The author's experience goes to prove that a cold seldom lasts three days under this treatment, and believes that the remedy acts as a powerful nervine and general tonic, bracing the patient's tissues to resist the multiplication of the organisms which cause the affection.—*Practitioner*, March, 1887.

THE VALUE OF HÆMORRHAGE IN TREATING WOUNDS.

Taruzza publishes a note (*Gazetta Degli Ospitali*, April 13, 1887) to show that hemorrhage from wounds, unless due to lesion of large vessels or in excess, does not interfere with primary union. He does not think it necessary to follow strictly the rule to secure complete arrest of hemorrhage and to apply firm compression. He relies on perfect disinfection of the bleeding surface, as far is possible, by means of weak solutions of carbolic acid or mercuric chloride. After this he leaves the cavity of the wound full of blood, the edges being accurately sutured, and without fear that primary union will not result. From his experience he formulates the rule: "In wounds perfectly disinfected and free from foreign substances, effusion of blood is not a source of danger, but the reverse, as the effused blood fills the wound-cavity perfectly, preventing the formation of empty spaces, and making compression and drainage superfluous, and the organization of the clot favors union." He is opposed to the drainage tube, thinking that it increases risks of sepsis, and may remove from the wound fluids which, when aseptic, may be useful by reabsorption.—*Jour. Am. Med. Assn.*

A POINT IN THE TREATMENT OF CHOREA.

Dr. Flood, of Minnesota, says that he has almost constantly found tenderness on pressure over the fifth cervical vertebra in choreic cases. In these he applies the ether spray over the tender spot, and follows that with a mild counter-irritant. Then, with a judicious use of tonics and ergot he has generally been successful in the treatment.—*Chicago Medical Times.*

IRON AND SODIUM SALICYLATE IN RHEUMATISM AND RHEUMATIC AFFECTIONS.

By Solomon Solis-Cohen, A. M., M. D.,

Chief of Clinic, Out-patient Medical Department, Jefferson Medical College hospital.

For some four years I have been in the habit, in certain classes of rheumatic affections, usually chronic, of employing a combination of tincture of chloride of iron and sodium salicylate, prepared according to the following formula, which I have been informed by Dr. Rice, of Bellevue Hospital, New York, and other experienced pharmacists, is the first successful combination of these drugs in an eligible preparation. In the House Pharmacopœias of the Philadelphia Polyclinic, where it was first used in 1883, and of Jefferson Medical College Hospital, it is known as the Mistura Ferro-salicylata :—

℞.	Sodii salicylatis,	℥ iv.
	Glycerini,	f ℥ ij.
	Ol. gaultheriæ,	♏ xx.
	Tinct. ferri chloridi,	f ℥ iv.
	Acidi citrici,	gr. x.
	Liq. ammonii citrat. (B. P.), q. s. ad	f ℥ iv. M.

The mixture is clear, and is not unpalatable. The usual dose is two fluidrachms in water, three or four times a day. The quantities and proportions of the active ingredients may, of course, be varied according to the intended frequency of dosage and other circumstances. In cases which are rather subacute than chronic, it is sometimes given every second hour, until the physiological effects of the salicylate are produced, and then at longer intervals. I have also employed it, with apparently good resuls, in acute articular rheumatism, and in some cases of acute tonsillitis, especially in that group where the diagnosis is at first in doubt between rheumatic angina and diphtheria. Some of my friends have reported to me good results in acute rheumatism. Its particular aplicabilty is in that group of patients in whom Dr. Russell Reynolds strongly urges the iron treatment —a recommendation endorsed with equal earnestness by Bartholow—namely, anæmic, delicate, poorly-nourished or broken-down individuals, usually old people, children or adolescents, but met with at all ages, whether the disease be acute, subacute or chronic. In adults, indeed, as a rule, and quite frequently in children, even when the disease is not plainly chronic, the patient will give a history of repeated acute attacks ; or there will seem to have been a long series of recurrences, with intermissions of doubtful health. Recognizing the weight of the testimony in favor of tonic, and especially ferric, treatment of such cases, and yet desiring to obtain also the specific action of the salicylic compounds, I succeeded, after several ineffectual trials, in obtaining a clear mixture by the use of the formula given above, and four years' experience, latterly, with the ample material furnished by the Out patient Department of Jefferson Medical College Hospital, has abundantly confirmed my expectations of its usefulness.—*Med. and Surg. Reporter*, May 28th, 1887.

INCUBATION OF THE INFECTION OF MEASLES.

Dr. Sevestre, in a thesis recently published, demonstrates the fact that the period of incubation in measles is almost invariable—between thirteen and fourteen days elapsing between the moment of infection and the appearance of the rash. The fever appears four days earlier, viz., between the ninth and tenth day. Another fact, and one of far greater importance, has been determined by Dr. Sevestre, and that is that the infective power of the disease commences with the first moment of prodromic manifestations, viz., of the appearance of fever, and continues with unabated virulence until the eruption, after which its infective power diminishes very rapidly, vanishing entirely on the fifth day thereof. In the analysis of many hundred cases, not one instance of infection after the fifth day of eruption (the 18th or 19th after exposure) could be found. The practical bearing of these facts are manifest. They furnish a sure and valuable guide on points upon which the profession and laity have strangely blundered hitherto, viz , the proper time for isolation of the patient. The habit of sending off the apparently unaffected members of a family, while the fever in an affected one is at its highest, is the surest method of transporting the infection and creating new foci of disease.—*St. Louis Med. and Surg. Journal.*

TREATMENT OF DYSENTERY.

Ipecacuanha as a remedy for dysentery, has now been before the profession for a time sufficient to fully establish its worth or otherwise, and favorable reports of it are still received.

"*Technics*," quoting from *Progrès Medical*, gives a correspondence from Dr. C. MacDowell of Bombay, physician in the British army of East India, who speaks with great enthusiasm of the treatment of dysentery by ipecacuanha. Like other friends of this treatment, such as Bocker, Ewart, Cunningham, Mulun, etc., he says that it is almost a specifice, renders the disease easy to cure, and prevents the complication most feared, *i. e.*, hepatic suppuration. But he emphasizes, particularly "that the remedy be given early in the disease, at the time and in the proper manner." The principles of the treatment are :

1. To give a large dose of ipecac, at least 30 grains, for an adult.

2. To prepare the stomach to accept and retain such a large dose by about twenty drops of laudanum an hour before giving the ipecac , also the application of a sinapism over the stomach ; and to

administer the ipeac in the form of large pills, not in a solution. It must also be given at night. at the time of going to sleep, never in the morning, and not during the day and no liquid is to be taken after the dose has been given.

Sometimes the patient vomits a little mucus towards the morning hours, but the greater portion of the remedy has by that time absorbed. This treatment must be renewed every night, and usually the improvement is marked by the third morning or sooner, blood, mucus, pain all three have disappeared. A disease which formerly made us despair has now lost its terror to us.

The opium may be substituted by a hypodermic injection of morphia. Bissmuth subnitrate may be given during the day. Small doses of ipecac are more than useless; they have been tried in India for more than two centuries without lessening the mortality in dysentery. Since more than twenty years the above has been adopted as almost the only treatment in British India and has given the best results.—*Weekly Medical Review.*

DELIVERY AFTER DEATH.

Last Saturday, Mrs. Rosseau living in Engene Sue street, succumbed to a peritonitis occurring at full term.

The medical certificate having been filled in, the employes of the undertaker called Sunday to place her in the coffin, when to their horror they found that she had been delivered of a child, that likewise was dead.

The burial was delayed—a new certificate was made, and this circumstance, that had given rise to the strangest ideas, was explained in a natural way.

This confinement or delivery after death, was but the normal consequence of the developmen, of gases, due to the very rapid decomposition consequent upon great heat.—*Le Petit Joural* Paris, August 10th, 1887, translated for *Record.*

TREATMENT OF LATE CASES OF PUERPERAL INFECTION.

Dr. Hirst (*Philadelphia Med. News*) reports four cases of late puerperal infection, successfully treated by curetting the cavity of the uterus with antiseptic precautions. More or less decomposing decidua was thus removed in each case, and the temperature fell promptly.

LINDSAY AND BLACKISTON'S VISITING LIST.

This, the pioneer visiting list of this continent is early on our table. It still maintains its place, as being the very best, in spite of numerous rivals. We speak from a twenty years' experience of it.

THE CANADA MEDICAL RECORD.
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MONTREAL, OCTOBER, 1887.

THE CANADIAN MEDICAL ASSOCIATION.

The annual meeting of this Association was held in Hamilton, Ont., on the last day of August and the first day of September. The attendance was about equal to what it generally has been, but not by any means what it should have been. The reason for this lack of interest it is hard to understand, unless we come to the conclusion that the bulk of the Canadian profession are absorbed in gathering what our America cousins call "the Almighty Dollar." Yet, in a sordid point of view, attendance on these association meetings is not without its value. Much that is valuable, in a practical point of view, is always to be obtained at these meetings, and those who attend are sure to return home with new ideas, new points which are valuable additions to their store of knowledge. It is this knowledge which we charge for, and the more we have the better we will be paid for it. We fear another reason for non-attendance is that want of national enthusiasm, which is so characteristically present with our friends across the lines, and so markedly absent with us. We did hope that Confederation would remove this blot from us, and that it has done something towards that end is beyond question; but we have still too much Provincialism, too much Quebec, too much Ontario, for our national prosperity. The President, Dr. J. H. Graham, of Toronto, delivered an admirable address, dealing with the general interests of the profession. General addresses upon special subjects named at the previous meeting were read. This was the first time that this had been attempted, and the result proves, we think, that the move was a wise one. Several prominent medical men from abroad were present, among them our old Montreal friend and confrère, Dr. Osler, Professor of Clinical Medicine in the University of Pennsylvania. The next meeting will take place in Ottawa.

INTERNATIONAL MEDICAL CONGRESS.

The first meeting of the Congress on this Continent has been held, and is now among the events of the past. The divisions which occurred among the medical men of the United States, concerning it, caused no little anxiety as to its probable success. It is, therefore, satisfactory to know that it was fairly successful, though, of course, it cannot be denied that the absence of the majority of those who have made American medicine known abroad militated considerably against its *éclat*. Many eminent men from abroad were also induced to absent themselves, on account of this division among the American profession. The numbers present were, however, very large, the Western States being well represented, and Canada sent a fair contingent, Montreal as usual being well to the front. Several very valuable papers were read and ably discussed; but, upon the whole, the foreign representatives think that the meeting was deficient in purely scientific work. We need hardly say that the social work of the Congress was just that for which the large-hearted generosity of our American friends are so noted. Those who came from abroad, we are satisfied, returned home, feeling that they had been visiting a great nation, whose people are alive to all the great issues which affect the human race.

FRESH AIR.

The advantage of pure air, uncontaminated with the impurities, which surround all cities of a considerable size, is admitted by every one, in a hygienic point of view. Physicians know that bad hygienic surroundings not only predispose to disease, but prevent a return to health, when disease has once been developed. It does more, it stunts growth, prevents muscular development, and renders the various organs of the body, especially those concerned in alimentation, unfit to perform their functions in a healthy manner. From various causes, some preventable, and others not, a large portion of the population of cities are born and reared under such surroundings. As a result, when the warm summer days come round, disease attacks those thus situated; and being unable to obtain the proper remedy, pure air, the mortality becomes excessive. This condition of things has, for several years past, been attempted to be remedied in New York, and in a few other large cities, by the formation of a fund known as "the Fresh Air Fund." The object of this Fund has been to send to the country, and to the sea shore, such children of the poor, who being ill or even in delicate health would, it was believed, be benefited by the change. During the past summer, through the energy of Mr. Hugh Graham, Proprietor of the Montreal *Evening Star*, our good city fell into line, and established its Fresh Air Fund. Willing workers were not wanting, and willing contributors came forward with the means in money and in kind. The result was that for the first time in the history of Montreal, a very large number of the sick poor were enabled to visit the country, for a long or short period, as the circumstances of each case seemed to demand. The complete result of the charity has only just been given to the public. From the report of the chairman, it is learned that the committee rented two buildings for the season. One of these at Murray Bay, a famous watering-place on the Lower St. Lawrence, accommodated fifty persons, and was intended for those who, in the judgment of physicians, required sea air to restore them to health. At this place no fewer than 159 persons were maintained. It was ascertained, however, that a very large number of delicate mothers and sick children would be benefited by a simple change of air, and plenty of wholesome food. Steps were therefore taken to secure a home for these nearer Montreal, and, as a consequence, the second building, an hotel at Varennes Springs, about 13 miles from the city, and bordering on the St. Lawrence, which had been vacant for some time, was secured. The period during which each guest was entertained here was ten days. At one time the Home had 160 inmates, and during the entire season it accommodated 550 poor guests. In addition to the sick poor sent to Varennes and Murray Bay, a number of children with their mothers were provided for in the homes of farmers living at some distance from Montreal. Some of these were paid for, but others were entertained gratuitously by generous families. But this is not all. The committee did not content itself with the care of the actual sick. The chairman says it was known that there were hundreds living in the low places of the city, not ill, it is true, but whom a day's "outing" in the country or down the river would prevent many a visit from the doctor. Accordingly, the committee arranged a series of weekly excursions by boat and rail. "In this way, 5,537 persons shared the im-
"mense blessing of God's fresh air, for one day.
"The glowing cheek and sparkling eye testified to
"the benefits which hundreds had derived from

"even those few hours' change. An abundance "of plain and wholesome, refreshments was sup- "plies to these excursionists, free of charge, and, it is "needless to say, disappeared as if by magic." Altogether 6,247 children and women were treated either to a one-day or to a ten-day excursion, and to all the fresh air that such an outing means; and the total cost, owing to the kindness of railway companies in giving reduced fares, of our profession in rendering their professional services gratuitously, and of other persons in contributing in kind, was but $4,829.

The amount of good performed for this small amount of money was very great. Had those who contributed to the Fund read the letters of gratitude which the work elected, or had they seen the parents coming personally to give thanks, whose "dimmed eye and quivering lip told the story "which the faltering tongue refused to tell," they would have felt that the little self-denial they had practised, in order to aid the work, had been more than repaid. There can be no doubt that the Fresh Air Fund in Montreal has given health and life to many little ones, who in their homes would have been condemned to die.

THE EIGHTH VOLUME OF THE INDEX-CATALOGUE.

The eighth volume of the "Index-Catalogue of the Library of the Surgeon-General's Office United States Army," including headings from "Legier" to "Medicine (Naval)," has recently been issued from the Government Printing Office. It contains 10 pages of preliminary matter, and 1,078 pages of references. We have so often expressed our admiration of this great work, that we need not now say more than that the new volume is quite on a par with those that preceded it.

THE ILLUSTRATED LONDON NEWS.

This well known journal is obtaining a very large circulation for its American edition, now published simultaneously with its London edition, at Potter's building, New York. We do not wonder at this, for its yearly subscription is one half of the London issue, viz., $4.00. It is just the paper for physicians to have on their waiting-room table. Patients who find it there will not feel the time long while waiting for the doctor. We place it on ours and vouch for our statement being correct.

LITERARY NOTES.

The following works will be issued during December by the New York Publishers, Leonard & Co., 141 Broadway. Diseases of Women, a work based upon the practical experience and teachings of the following eminent Gynæcologists: Drs. Thomas, Munde, Hunter, Lusk, McLane, Skene, Garrigues, Barker, Emmet, &c., 436 pages, Cloth, $1.50. Diseases of Infancy and Childhood, with over 400 Formulæ and Prescriptions, by Drs. Jacobi, Hammond, Flint, Loomis, Janeway, Bulkley, Agnew, &c., 300 pages; cloth, $1.00. Diseases of Heart and Lungs, with over 350 Formulæ and Prescriptions, by Drs. Draper, Delafield, Leaming, J. Lewis Smith, Loomis, Clark, Janeway, &c., 204 pages; Cloth, $1.25.

The Archives of Gynæcology, New York, has just closed another successful year, having furnished its readers with the resumé of no less than 584 articles. The Publishers do not send sample copies, but announce that any subscriber may return the first number and cancel the order. Subscription $3.00. Payment is not asked till end of year. Leonard & Co., Publishers, 141 Broadway, New York.

Bromo-Soda: On a recent trip to Europe, on both the outward and homeward passages, I used Warner & Co.'s Effervescing Bromo-Soda with great success in preventing and relieving sea-sickness, the quantity given was a heaping dessert-spoonful, repeated hourly if necessary.

I believe Bromo-Soda to be a very valuable preventive and remedy for sea-sickness, it certainly was unfailing in my hands.—W. H. Keim, M. D., 2015 Ridge Ave., Phila.

PERSONAL.

Dr. A. P. Scott, M. D. (Bishops 1887), has returned from London. He received the L. R. C. P. Lond., at the examination in July last. He intends commencing practice in Montreal.

Dr. Wolfred Nelson, M. D. (Bishops 1872), Foreign Medical Inspector of the New York Life Insurance Company, returned the middle of this month from the Continent of Europe, where he has been for several months on official business.

Dr. Lorne Campbell, son of the late Dr. George W. Campbell, after an absence of several years

in Europe, has returned to Montreal, where we presume he will enter upon the practice of his profession.

Dr. James Bell has been appointed Medical Adviser of the Manufacturers' Life Insurance Company of Toronto, for the City of Montreal.

Sir James A. Grant, M.D., delivered the Introductory Lecture of the Medical Faculty of McGill University, on the 3rd of October. In the evening of the same day he was entertained by the Faculty at a Dinner in St. James' Club.

REVIEW.

The Archives of Pediatrics, a monthly Journal, devoted to the diseases of infants and children. Philadelphia, J. P. Lippincott & Co.

This is a very valuable monthly, and we are pleased to hear of its continued prosperity. That the publishers intend to deserve the support they are receiving, they announce that with the number for next January they will begin a series of articles on the Therapeutics of Infantry and Childhood, by Dr. A. Jacobi, Clinical Professor of diseases of children in the College of Physicians and Surgeons of New York. In writing to the Editor, accepting the task, Dr. Jacobi says:

"I will prepare an essay of ten or twelve pages for every monthly issue of your Journal. The subjects will be therapeutical. The first paper will probably contain general principles in their application to the disorders of early age. The following will treat of the therapeutics of the diseases of the new born, of developmental and infectious diseases, those of the organs of circulation and respiration, genito-urinary organs, stomach and other abdominal viscera, muscles and bones, skin, nervous system, etc. Other subjects which will be treated of afterwards are certain classes of remedies, such as anæsthetics, narcotics, anti-febriles, purgatives, absorbents, roborants, and stimulants, etc. If there be time and room, the most interesting diseases, such as epilepsy, chorea, whooping-cough, and growths, may become the subjects of special papers."

Transactions of the Association of American Physicians.—Second session held at Washington, D.C., June 2nd and 3rd, 1887, Philadelphia. Printed for the Association, 1887.

We have to acknowledge the receipt of this volume, which is the record of work done by men who are earnestly engaged in the field of Medical Science. We are pleased to notice that the first article is from the pen of Dr. R. Palmer Howard of Montreal, who, by-the-by, is one of the vice-presidents of the Association. Dr. Howard writes upon a subject of much interest, viz., the occurrence of Hepatic Cirrhosis in children—fortunately a rare disease. He gives the details of two cases occurring in his practice, and strange to say both the children, in whom the diseases appeared, were members of the same family. There was not any history of alcoholism or of syphilis. The subject is well treated and elicited considerable discussion. An interesting article appears from our old Montreal friend, Dr. Osler, now of Philadelphia, on Hæmorrhagic infarction. As one would anticipate, it is most credible to its author, who is rapidly rising to the front to rank as a scientific physician. In every way the volume is most creditable to the Association, to which we wish increased prosperity.

Insanity, its Classifications, diagnosis and treatment, a manual for Students and practitioners of Medicine. By E. C. Spitka, M.D., President of the New York Neurological Society, New York, E. B. Treat & Co., 771 Broadway, 1887. Price $2.75.

This work seems to be especially valuable to medical students--for there is a conciseness and completeness about it which is really remarkable. For the same reason, perhaps, it will commend itself to the busy practitioner.

A Practical Treatment on the Diseases of the Hair and Scalp. By Geo. Thos. Jackson, M.D., Instructor in Dermatology in the New York Polyclinic; New York, E. B. Treat, 771 Broadway. Price $2.75.

In this age of specialism, we have not yet heard of any man who has taken the scalp and its adornment under his special protection. We have, however, heard of enquiries, having more than once been made for such a specialist, so that if demand creates supply his appearance is not distant. In the meantime, it must be confessed, the diseases of the hair and scalp—especially the former, have received from most authors but shabby treatment. In the work before us, we have a really excellent little treatise, valuable also on account of its eminently practical character, and as such we commend it to all who desire to post themselves on a subject, in which, if properly handled, there is money.

OBITUARY.

Henry Howard, M.R.C.S., Eng.

It is with very deep regret that we have to record the death of Dr. Henry Howard, one of the oldest practitioners in Montreal, which event, not unexpected, took place on the 12th of October. For over a year it was evident that his health was failing ; but, notwithstanding more than one warning, he continued to look after his work and move about. For several weeks before the end came, he was confined to the house, and on the date named he passed quietly away. Dr. Howard was born in Nenagh, Ireland, on the 1st of December, 1815. He studied medicine in Dublin with the celebrated Dr. Jacob. He came to Canada in 1842, first living in Kingston, and in 1845 he came to Montreal. He was, we think, the first specialist in this city on diseases of the eye and ear, and for several years conducted the Montreal Eye and Ear Institution, where thousands of the poor were treated, the Government giving it a small grant. Dr. Howard was a prolific political writer, and about 1858 wrote a series of political letters, which appeared in the Montreal Evening *Pilot* under the name of "*Little Bo-Peep*." These attracted the attention of the great political leader, Sir John A. Macdonald, and when a year or two later the Government decided to establish a Lunatic Asylum at St. Johns, Q, Dr. Howard was appointed its Medical Superintendent. The wisdom of this appointment was at the time vigorously assailed, but whatever truth there was then in the statement, that he was totally inexperienced for such an office, it is beyond question that his vigorous and scientific mind soon grappled with the subject of insanity, so that before long, even his enemies admitted that he had fully qualified himself for the position. Hampered as he was at St. Johns, with what was perhaps the worst make shift for an Asylum that the world ever saw, he produced results which were hardly credible, but redounded to his ability and foresight. When Confederation placed the care of the insane under Provincial management, and the Asylum at St. Johns was closed, and the insane removed to the St. Jean de Dieu Asylum at Longue Pointe, Dr. Howard was appointed its Government Medical Inspector. Here began the troubles of his life, for his scientific mind, now thoroughly trained to his special work, was entirely opposed to the system of farming out lunatics. We have seen and read in manuscript report after report, which he sent to the Local Government, protesting against the system, and the general management of those placed within the walls of this large Institution ; but so far as we have any knowledge, not one of these reports have ever been printed, and certainly the result he wished and worked for was never accomplished. His work as Medical Inspector, under these circumstances, can hardly have been called a labor of love ; and of late years, owing to disagreements between the Government (Contractor) and the Lady Superior, his position was dedecidedly unpleasant ; the constant worry and vexation to which he was subjected had great effect upon his system, so much so, that more than once he expressed to the writer the fear that it was undermining his constitution. In the hope, however, of yet accomplishing something for the benefit of his suffering fellow-creatures, he endured it all, and at a time of life, when nature called for quiet and repose. We have the hope, however, that what we may call his life-work has not been in vain. In his views on insanity, Dr. Howard was in advance of most of his co-temporaries. He believed that all criminals were insane, and therefore irresponsible ; some held that the future would prove his theory as correct, others that it was wild and Utopian. He wrote many articles on subjects allied to his speciality, which were read before the Medico-Chirurgical Society of Montreal, and subsequently appeared either in this Journal or in the *Canada Medical and Surgical Journal*. In 1882 he published a small volume upon "The Philosophy of Insanity, Crime and Responsibility." He was an Ex-President of our Medical Society, and till a few months before his death, the most regular attendant at its meetings, setting an example to some of the elders of the profession in Montreal, which, we are sorry to say, they do not follow. At its meeting, his familiar figure with his flowing white beard and accompanying snuff box, was ever a welcome sight to his younger brethern, who, it may truthfully be said, "loved him for his kind, warm and generous nature." He was a warm debater, hit hard sometimes, but always gentlemanly. It will be many long years before the present members will cease to feel the want which his absence creates. We fully endorse the closing words of his obituary in the *Canada Medical and Surgical Journal* of this city : "A brave manly life, fought with unwavering cheerfulness through many and grave difficulties, and laid down at last with the quiet calmness begotten of conscious rectitude."

His remains were removed to St. Johns, Que., where they were interred.

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RETROSPECT OF GYNECOLOGY.

By A. LAPTHORN SMITH, B.A., M.D., M.R.C.S., ENG.

Professor of Medical Jurisprudence and Lecturer on Gynecology in Bishop's College Medical Faculty.

The past year has been an eventful one in the history of the medical sciences, but in no department of them have the workers been more active than in Gynecology. The reason for this is not difficult to find; the field is large, almost unlimited; the workers are comparatively few; and the rewards won by success are larger than in almost any other branch. Such being the case, it has attracted to the ranks a considerable number of very able men, with the result that it has rapidly advanced from the position of an uncertain and indefinite science to that of one of the most exact. In the limits of this article we can only attempt to give a very brief outline of the most important improvements in treatment. One of the most remarkable changes which have lately taken place in gynecological practice is the almost complete abandonment of the pessary, and the substitution for it of operative procedure. This is due to the more rational comprehension of the causeswhich lead to displacements of the uterus. So that instead of trying to bolster up a too heavy organ with a hard mechanical and unnatural support, such as a pessary, the modern gynecologist takes immediate steps to reduce its size and weight, and then to tighten up the weak and relaxed ligaments. This result is obtained in various ways by different operators. Thus Martin of Berlin and Soleris of Paris at a single sitting perform partial amputation of the cervix, then anterior and then posterior colporrhaphy. The three operations are generally completed in one hour, for being performed under constant irrigation with weak antiseptic solutions, no time is lost in sponging; while for the colporrhaphies the running catgut suture is used in one, two, or three layers, according to the size of denudation, and this saves the time which would be spent in tying the knots in the interrupted suture. Others, such as Alexander of Liverpool, make use of the round ligament, which they shorten to drag the uterus upwards and forwards. Kellog of Battle Creek combines Alexander's operation with Lefort's operation of medium colporrhaphy, which consists in making a bridge or raphé in the vagina by uniting the anterior and posterior walls for such a distance as the case may require. A strip of surface from three-fourths of an inch to an inch in width is denuded from each wall, from a point about an inch below the utero-vaginal junction, as low as may be necessary to turn in completely both the rectocele and the cystocele present. The edges are properly brought together with sutures. Dr. Kellog, in speaking on this subject before the International Congress, said: "A woman who is dependent upon a pessary is almost equally dependent upon a doctor to inspect the appliance at stated intervals, and substitute a new one as each successive ring or lever or other device loses its efficiency by the stretching of the vaginal walls, or other injurious modification of the parts, and has little or no hope of radical cure, even after years of treatment." And he added: "If this operation succeeds half as well as present

predictions seem to indicate that it will, many thousands of pessary pestered women will rise up and call great and blessed the fortunate discoverer of this most valuable surgical procedure."

Others again, while recognizing the uselessness of the pessary, are not quite so ready to advocate operative procedure. They hold that the weight of the organ can be reduced by favoring involution and activating the general and local circulation by appropriate treatment, while the uterine supports can be made to do their duty by exercising the abdominal and pelvic muscles, and by building up the general health. Their method is perhaps the most rational one. Formerly their treatment consisted in the introduction of glycerine of tannin tampons, alternately with the hot douche, in the vagina, and the application of Churchill's iodine to the endometrium and cervix. This treatment though tedious is fairly successful in cases of slight or medium severity. But in severe cases Apostoli's discovery of the wonderful trophic influence of the galvanic current in causing the absorption of fibro-plastic exudation, by which involution can be rapidly artificially produced, and his application of Tripier's method of toning up relaxed muscular tissue with the Faradic current of low tension has already begun to work a revolution in gynecological treatment. Veit, Wyder, and Martin consider the mucous membrane as the starting point of uterine disease, and they remove it in nearly every case with the semi sharp curette. Apostoli removes it with the galvano-chemical cautery, which at the same time renders the uterus more able to form a new and healthy lining membrane. It is remarkable to see how much interference the uterus can bear on condition of a rigorous antisepsis. One sees many times a day in Berlin the uterus dilated, the mucous membrane scraped away until one hears the steel scratching on the raw muscle beneath, and then injected with tincture of iodine, and irrigated with sublimate or carbolic solution, without the slightest risk. And yet without antispetic precautions, the mere passing of the sound alone has often proved fatal. It is thus that Goodell practises rapid dilatation of the uterus to one and a half inches, with the vagina full of antiseptic solution, while some honest country doctor sends for his instrument and soon has a fatal case of peritonitis. The first lesson for everyone to learn who intends to practice gynecology is the thorough appreciation of the importance of keeping himself, his instruments, and his patient *clean*, with or without antiseptics.

The treatment of cancer of the uterus has also made much progress, principally through the labors of Freund, Schroeder, Martin, Olshausen, and Gusserow in Germany, in perfecting the method of total extirpation of the uterus per vaginam or vaginal hysterectomy, as it is called. The mortality which was 29 per cent. in 1881 has now been reduced to 15 per cent. in 1886.

The following is Martin's method: The bowels are thoroughly emptied, the vagina thoroughly disinfected by an antiseptic irrigation, the patient placed on her back and anæsthetized. The vault of the vagina is exposed by means of a Simons speculum and side pieces; the cervix is seized by bullet forceps on its posterior border, and drawn forward as much as possible toward the symphisis pubis. This stretches the posterior arch of the vagina and the insertion of the vagina can be nicely determined. He then makes an incision along the whole length of this insertion so as to get into Douglas' cul de sac as quickly as possible. This is frequently attained with the first cut. This accomplished he enlarges the cut so that the forefinger of the left hand can enter, and then with a small needle very much curved he sews the peritoneum and vagina together all along the cut, thereby arresting hæmorrhage. The cervix is then drawn forcibly backwards, and the anterior vaginal vault is cut through in the same way, the bladder is peeled back from the cervix with the thumb nail, and the peritoneum sewed to the vagina as behind. The fundus is then grasped with the bullet forceps and retroverted little by little until it is dragged into the vagina. The left broad ligament is then sewed with strong thread in a double row of stitches and the tissue is cut between them. The uterus is then further dragged down, being only held by the right broad ligament which is tied in several segments and divided. During the operation a weak warm solution of carbolic acid plays constantly on the field, doing away with sponges, except when the operation is over to dry out Douglas' pouch, into which he then introduces a thick aseptic drainage tube which is held in place by a cross piece; and the other end of which is turned into the vagina which is filled with iodoform gauze. Of course vaginal hysterectomy will be followed by recurrence, unless it is performed at the beginning of the disease before the neighboring tissues have become infiltrated. When this has

happened the disease may be delayed, and life made tolerable for a long time, by destroying the diseased tissues with the "Paquelin's cautery," and then carrying out the dry treatment with in sufflations of iodoform, and plugging the vagina with tampons of sublimated absorbent cotton. We have at present a case under our care where the disease completely fills the pelvis, and yet the patient only requires treatment every five or six days. Fritch employs iodoform gauze, and he says that it relieves the pain, foul discharges and hæmorrhage so that the patients think they are well.

Dr. Chauvrin, of New York, recommends Alveloz which has the power of diminishing to a marked degree the amount of the discharge, and rendering it decidedly less offensive.

Dr. Carpenter, of Cleveland, says that Lactic acid has the power of dissolving sloughing tissue, leaving a healthy, granulating surface. It is applied freely on absorbent cotton, and then washed off.

The Gynecologist often needs to know whether the uterus is gravid or not, and sometimes this is a difficult matter to decide. We recently had a case of fibroid sent to us for Apostoli's treatment, and having just previously read an article by Dr. McKee, of Cincinnati, on the characteristic color of the vagina in pregnancy, we were able to state our opinion to that effect at the first examination. It may be described as greyish purple, or dark purple. Dr. Z. W. Farlow (*Boston Med. & Surg. Journal*, July 21, 1887) calls it a blue color, and he gives the following analysis in 141 cases:

36 no color.
55 color suggestive.
70 color characteristic.

In our case an abortion a month after beginning the treatment bore out our conclusion. In this case we went on with the treatment with our eyes open, because she was so much reduced by suffering that her life was in danger, and her abdomen was so distended with fibroids that the uterus could not expand much further. Besides, she had come a journey of nearly a thousand miles to be treated with electricity, and was determined not to go back until their growth was stopped. The tumors are diminishing, and she has passed through the miscarriage at five month ssafely and without any hœmorrhage whatever, although she suffered severely from the dragging on the adhesions of one of the tumors to the abdominal wall, caused by the return of the uterus to its non-pregnant size. She would probably have miscarried soon at any rate, and now the tumors will be rapidly reduced in size by the electric current.

Dr. Weeks reported a case of myoma in a pregnant lady, where after consultation an abortion was brought on, and which was followed by death. In that case there were no urgent symptoms for interference, and we thought it would be better to leave such cases alone until after delivery; for as Dr. Reed (*Cincinnati Lancet-Clinic*, Dec. 3, 1887) says many women not only go through their pregnancy and delivery without any trouble, but their fibroids participating in the general resorptive process of involution sometimes disappear.

Apostoli's treatment not only bids fair to completely do away with the knife in the treatment of fibroids, but also promises to throw considerable light on their nature and cause. We know that the uterus will become heavy and indurated whenever the processes of nutrition and circulation are slow, and a section of such an organ reveals an abnormal amount of fibrous tissue. And it is no longer a theory but a fact that this exudated fibrous tissue can be called back into the circulation under the stimulating influence of the galvanic current, so that the organ becomes soft and muscular. To us it seems that a fibroid tumor is but a deposit of lymph which has exuded from the vessels under the influence of a tardy vital power and circulation. Under certain conditions of improved health the trophic nerves call back this exudation into the circulation, while in others this can be done artifically by the aid of electricity. As an instance of this we may cite a case under our care, and which will be reported in due time, where a uterus which was hanging several inches outside of the vulva and into which the sound entered five and a quarter inches, has with less than thirty applications of the galvanic negative current been so much reduced in size, that the sound only enters three inches, and the weight is so much less that it can very rarely be seen at the vulva at all.

The teachings of Macan, Master of the Dublin Rotunda hospital, are beginning to make his British brethren realize that the uterus has no fixed position either antero posteriorly, or with regard to its height in the pelvis. We have long held this view, that the organ is never for ten consecutive seconds in the same position. It is carried backwards when the bladder is full, and forwards when the latter is emptied; and in the same way its posi-

tion is modified by the state of the rectum. We showed in a paper read before the International Congress that its height in the pelvis varied also from hour to hour according to the degree of strength or fatigue of the muscles in its so called ligaments or supports. For the uterus to lie helpless on the pelvis flow is not a normal position because every movement communicates a jar to it.

It matters little whether it is anti-verted or retroverted, as long as it is floating or suspended. The result of the appreciation of this fact will be that, fresh air, good food, removal of corsets and healthy exercise, wtth iron and strychnine, will be prescribed more, and pessaries less and less.

Principally owing to the teachings of Lawson Tait, a new method of treating peritonitis has been introduced. Instead of keeping the bowels rigorously locked with opuim he gives large concentrated doses of salines (we prefer sulphate of soda in ʒss doses), repeated several times and aided by large turpentine enemata. Dr. Baldy (American Journal. Obstetrics, Dec. '87) says the symptoms begin to subside almost immediately when the bowels commence to discharge watery stools. Osmosis takes place from the lighter to denser fluid, so that if the saline solution is many times denser than the peritoneal effusion, the latter will be drawn into the intestine and thus leave less pabulum for the microbic fermentation. Besides there will be less chance for the formation of adhesions, and even when formed they may be broken up.

Some doubt has been cast on the abilty of electricity to kill an extra uterine fœtus, and consequently laparatomy has been advised the moment intra uterine fœtation is diagnosed. We can say that 125 milliamperes of the constant current does not kill it when applied directly to it in the uterus, for in the case mentioned above, the fœtus was born alive after having had that strength applied several times. But of course it had been applied without shock.

We shall review some other advances in Gynecology in a future article.

THE MORBID CHANGES AND SURGERY OF THE NAIL.*

By J. Leslie Foley, M. D., Bishop's College, L. R. C. P., of London, formerly Professor of Anatomy, Medical Faculty, University of Bishop's College.

Mr. President and Gentlemen: I read this paper more for my own instruction than for yours, hoping that it may provoke discussion, and that I may thereby learn the views of members of riper experience and maturer judgment than my own. The nail seems a somewhat trivial and ordinary subject to occupy the minds of learned members of this Society, but it is only by contemplating the smaller objects that we are fully able to appreciate the larger; and in practice, as in life, the careful attention to little things often tends greatly to one's success. In order properly to understand the morbid changes of the nail, it is necessary to be familiar with its normal structure. Pardon me, therefore, if I refresh your memories by briefly referring to its anatomy. A nail is a peculiar arrangement of epidermal cells: the undermost of which are rounded or elongated; the superficial are flattened, and of a more hairy consistence. That modified portion of the corium by which the nail is secreted forms the matrix, and extends beneath its root and body. The back edge of the nail or root is received into a shallow, crescentic groove in the matrix. The front part is free, and projects beyond the extremity of the digit. The intermediate portion of the nail rests by its broad under-surface on the front part of the matrix, which here forms its bed. The part between the root and free extremity of the nail makes up its body. The matrix beneath the body is not uniformily smooth on the surface, but is raised in the form of longitudinal and nearly parallel ridges, on which are moulded the epidermal cells of which the nail is made up. The growth of the nail is effected by a constant production of cells from beneath and behind

Excessive growth of nail substance occurs either by multiplication of the nails or increase in bulk. This anomaly includes the occurrence of nails in unusual places, such as on scapular region, on last phalanx of supernumerary fingers or toes, double nails on fingers or toes, etc.

Both go by the name of onychauxis or hypertrophy. These vary. In the first it appears spherically curved, glossy on surface; a grayish white color, unshapely, thick, opaque, has a massive feel, and is very hard. When the whole nail is affected, its free border has a tendency to curve downwards. It may occur in various directions, according as it is disturbed in the vertical or transverse way (onychogryphosis). In its simplest form, it becomes clam-like. In other cases, it may curve spirally.

Symptoms. Loses its elasticity; becomes thickened. Loss of tactile sense. It is very much diminished, and reduced to a minimum. Patient unable to execute fine work, and, when enlargement considerable, incapacitated for work. When toe-nails affected, walking interfered with; and, at the same time, most unpleasant effects (inflammation and suppuration) are produced by nails enlarged laterally. If uncared for, they penetrate toward the lateral groove and grow in. In the second form they are slightly lustrous, dirty, yellowish-brown, or yellowish grayish-white. Externally, have well-marked longitudinal ribs; at

*Read before the Surgical Section of the Suffolk District Medical Society, April 6, 1887.

intervals, transverse, more or less elevated ridges, and here and there horny plates.

Etiology. Onychauxis may be congenital or acquired. In the former case, it dates from the the embryonal period, and the anomaly appears in the course of life in the great majority of cases acquired.

Defective or altogether neglected care of nail may cause it. Uncleanliness, accumulation of all sorts of substances on the nail-bed act as irritants. This sometimes occurs in old people and bed-ridden patients.

Traumatic Influences. Any considerable pressure for some time from in front or sideways on the extremities, as too short or narrow shoe, increases nutrition of nail-bed by augmented afflux of blood, and gives rise to hypertrophy.

Extension of morbid inflammatory processes of the corium and the connective tissue of the cutis to the matrix of the nail, as psoriasis, eczema, etc.

Defective formation of the nail, atrophy, etc., absence of the nails (anonychia), or their retarded growth, may also be congenital or acquired—causes much the same as in hypertrophy. Thermic and chemical irritations. traumatic influences, knock, blow, or pinch, inflammations associated with suppurative and ulcerative processes, febrile diseases, and all chronic wasting diseases, may be ranked as etiological factors. The cutaneous and nervous affections causing hyperplasia may also give rise to aplasia.

Characteristics of an-imperfectly developed nail. Lustritous, delicate, a whitish-gray color, giving the impression of a thickened membrane, possessing but a slight hardness, readily broken and flexible. Dr. Ashurst observes, in a foot-note in his "Principles and Practice of Surgery," that Guenthre, a Danish surgeon, and Nillien, of Illinois, have noticed that the growth of nail is retarded during the early stages of fractures, to be resumed as repair goes on. They suggest this as a means of testing the progress of the cure, without disturbing the dressings in cases of delayed union or false joint. The growth of nail, however, may be checked by any cause which interferes with the nutrition of the part. Hence the test might not be universally applicable. Mitchell has noticed an arrest of growth in cases of cerebral paralysis. Gay the same, as a result of compression of the subclavian artery.

Nails may be deformed, degenerated, or discolored. They may be abnormally long or short, broad or narrow, flat or curved. A cut of a penknife will cause a bending of the nail. These deformities are not generally amenable to treatment. Too much stress is laid in works on clinical medicine as to the value of the color of the nail in various diseases. These are due to processes of nail-formation.

Animal and vegetable parasites affect the nail. The sarcoptes scabiei attacks the nail. In tropical regions, there are a number of flies which lay their eggs under the nails. Sand-fleas will cause, first, violent pain, and subsequently, paronychia, associated with loss of nail.

Vegetable parasite, onychomycosis. In only two mycoses of the skin, favus and herpes tonsurans, has it been clearly demonstrated that transference of their fungi will cause changes in the nail, that is, onchomycosis. Tinea favosa is rarer than tricophyton or tonsurans. The clinical features are similar. Nails brittle, frayed out, intersected, are lifted up according to the quantity of epidermis under them, become gryphotic, thickened, flake off, faded, dirty yellow color, and often become greatly disfiguring. Both the achorion schonleinii and tricophyton tonsurans produce the above alterations. In a few cases, the nail presents a yellow-sulphur color, due to favus.

Horny growths sometimes spring from beneath the nail.

Ungual exostosis frequently appears. Both require excision.

The nail is closely related to the hair. I might mention, in passing, an instance known to me, which will serve to bear out this remark. A gentleman was camping out, some summers ago, in the Hudson Bay region. One night a dreadful lightning-storm took place. The following morning, not only every hair on his body fell out, but he was also bereft of every nail, and remains hairless and nailless to this day, notwithstanding the use of the whole armamentarium of the pharmacopœia. The matrix of the nail is sometimes the seat of inflammation, etc. In its simpler form, we have onychia simplex; in the more severe, onychia maligna. This last occurs almost entirely in children under ten years. It is not very frequent. In Holmes' "System of Surgery," Mr. Thomas Smith states that out of seven thousand surgical out-patients of children under ten, he found the disease in nine instances only, and these cases occurred between the ages of one and seven years. May commence from a pinch or crust of finger-end, or result from explosion of firecrackers. The swollen, bulbous-looking finger-end; the fluid effused beneath the nail; the thickened, flattened, or curled-up, unnatural-looking nail; the foul and painful ulcer exposed beneath it, with its peculiar, characteristic fœtor, and the hardened, shiny, and livid-red integument around it, are, no doubt, familiar to you all. The disease may go on until the joint is lost, or the phalanx necrosed.

I take a paronychia to be an acute inflammation of tissues underlying the nail. The ancients define a paronychia as an inflammatory tumor near the nail, involving its pulp or matrix. But in most modern works on surgery you will find described under the head paronychia, whitlow, felons, and even inflammation extending up to the hand or arm. The middle or side of the subungual tissues may be affected. Puncture, concussion, contusion, laceration, etc., may give rise to a paronychia. If the nail enlarges in width, it

will press on the lateral furrow, and this, coupled with compression from a shoe, will cause a paronychia lateralis. At first, there will be great irritability of the parts, later, inflammation, suppuration, great proliferation of granulations, destruction of the cutis, of the tendon, opening of the phalangeal joint, caries and necrosis of bones. Usually the internal angle of the great toe is affected, rarely the outside of the little toe, seldom any other toe. It may assume a mild form or become chronic, with now and then an exacerbatory character, may be covered with irregular, spongy, easily-bleeding granulations. It may last for years.

Ingrowing toe-nail almost invariably occurs on the outer side of the nail of the great toe. Psoriasis may affect the nail. It may be although not necessarily so an evidence of syphilis. Central part of nail diseased; scabrous thickened, rough, convex, splits, deep fissure between the skin and finger. Nail resembles the concave shell of an oyster. Affection chronic and difficult to cure.

Syphilis may attack the nail. Jonathan Hutchinson† was one of the first to draw attention, not only to the state of the nail in syphilitic psoriasis but in congenital syphilis. Nails, symmetrically affected, dry, brittle, fissured and broken at their edges, superficial layers alone diseased. There is, however, a more remarkable affection in the form of a chronic general onychitis. The nails decay and fall off; they first become opaque and much thickened, their substance is soft. The disease is due to inflammation of the matrix which is swollen and readily bleeds. Syphilitic onychia usually attacks the toe-nails, and is often associated with ulcerative fissures between the toes. The inflammation is not so severe as in the non-syphilitic form. Perionyxis is a syphilitic inflammation surrounding the nail, exists in a dry and moist form. It also has a simple and ulcerative variety. Deep ulcerations forming in the latter. Mucus patches are sometimes seen under the free border of the nail.

The surgery of the nail resolves itself into operative and general treatment. If it be troublesome on account of its longitudinal growth, this must be removed with the scissors in simple cases; when the thickness is increased at the same time, use cutting pliers or saw. Paronychia lateralis in its early stage may be treated by removing that part of the nail which threatens to grow in, besides putting into the groove fine threads of charpie, and ordering wide shoes. When the inflammation is extensive it is well to use the method of complicated pressure, as devised by Kaposi of Vienna. This consists in first removing that portion of the nail projecting into the inflamed surface, then the swollen edge of skin is carefully pressed downward, and the widened space thus gained at the furrow is filled with accurately inserted threads of charpie cotton. In doing this, care should be taken that the sharp edge of the nail does not come in contact with the irritated part of the skin. This done, strips of adhesive plaster (emplas diachylon) are wound round the ungual phalanx, commencing at the affected part from above downwards, each turn being moderately stretched, so as to remove the border of the skin as much as possible from the edge of the nail, to crowd it downwards. If this is done skilfully, it will cause no pain to the patient, and eases his condition at once. He can not only walk, but wear his shoes. After twelve or twenty-four hours, the dressing is taken off, foot bathed and bandaged anew. Kaposi claims that this will cure the patient in from two to four weeks. Some add medicated solution to the charpie, carbolic acid, etc. If greatly developed fungous granulations are present, they should be cut with the scissors, down to the base, and the bleeding points touched with nitrate of silver. In rare cases will be obliged to resort to Dupuytren's radical operation, that is, inserting pointed end of scissors beneath the nail, divide it into two parts firmly seizing the diseased side of the nail with pliers, and pulling it out. The nail usually re-appears. A great object in in-growing toe-nail is to give the feet all necessary room. In the early stage, when there is no considerable mass of overhanging integument or fungous granulations, pressure of the nail on the soft parts may be relieved by packing into the groove on the affected side, oiled cotton wool with the flat end of a probe or pen-knife. This may be done without pain. The quantity of wool may be increased at each application, until the soft parts are raised and pushed aside. The free edge of the nail is exposed, beneath which wool should be inserted until the natural state is restored. Nails should be allowed to grow so as to form a right angle at the outer corner. If much inflammation, the toe may be kept in water dressing during treatment. Overlapping integument kept in natural relation to the nail by strips of adhesive plaster. Dr. Tribury Fox says, "In-growing toe-nail is easily cured by softening it, and then scraping off as much as possible, so as to thin it in the middle." A similar plan may be adopted to remove splinters imbedded in the nail. Nail scraped thin over the splinter and then cut through. It can in this way be painlessly removed. When the nail cuts deeply into the flesh, causing ulceration and fungous granulations, remove it at once, using either spray or cocaine. Dupuytren's method, as described above, is the one usually employed by surgeons, Nails may be cut by knife instead of dividing by scissors. Some surgeons prefer to remove the whole nail.

Dr. Monks has kindly called my attention to Dr. Cotting's, of Boston, method of treating ingrowing toe-nail. Anything emanating from Boston is sure to bear the impress of sterling worth. It seems to me to be the most feasible of all methods. He removes the fleshy part of the toe at

†British Medical Journal, 1865, p. 45.

the side of the nail so that it will have nothing in which to imbed itself. It is no doubt well known to you all. In treating onychia, remove the nail by evulsion, then dress the ulcerative surface with Black wash, or the old standby, Abernethy's solution, ii ℥ liq. potass; arsenitis ad aq. i. ℥ Arsenic has a beneficial effect on onychia. Dr. Moreloose, of Ghent, was the first to recommend the powdered nitrate of lead in onychia maligna. It has afterwards been used with great success by Prof. Vauzetti, of Padua, and Sir William MacCormac, of London. It causes considerable pain when applied, but its results are excellent. In severe cases a great portion of the disease with nail may be sliced off. In syphilitic onychia a Black wash is the remedy "par excellence." Amputation has occasionally been performed for the cure of onychia maligna. Tonics should always be given. Dr. Livinq recommends very highly the giving of arsenic in non-syphilitic psoriasis; a tonic will add to the effect. In the syphilitic, mercury is of course the remedy. Appearance of nail improved by filing down with sand-paper. Skin near the margin dressed with white precipitate ointment. We must trace and treat the etiological factors. If an eczema exist this must be treated on dermatological principles, diachylon ointment, etc. In stubborn cases, Prof. Geben recommended using vulcanized rubber stockings and gloves. When all these diseases associated with connective tissue and papillary hypertrophy at the terminal phalanges, pachyderma, ichthyosis, verucca, etc., little can be done except keeping the affected part clean, and removing injurious influences. When syphilis attacks the matrix, anti-syphilitics required; when animal and vegetable parasites are present, anti-parasitics indicated. Ulcerative perionyxis is one of the bugbears of surgical therapeutics. Iodoform and nitrate of silver might be tried. In defective nail-formation, endeavor to find out the causes and treat them. Build up the system with tonics. Pressure by means of the wax nail is useful here. In all cases we should see that the shoe is not at fault, that it fits well, not too loose nor too tight. If the patient is a baker, carpenter, etc., and liable to irritation of the fingers, it is well to surround the end of the phalanx with soft wax.

Correspondence.

To the EDITOR OF THE CANADA MEDICAL RECORD.

SIR,—In your last number, just received, I observe a quotation from "*Le Journal de Geneve,*" that a woman has given birth to seven children within an interval of four years, and that they are all alive."

Very good–! brave woman–! I am sorry to take from her any portion of her claim as the *largest* benefactress, but she is eclipsed in that direction, in the city of Montreal, where a woman has given birth to twelve children in five years. There were two arrivals every ten months. And let me tell ladies with fewer children and greater wealth her happiness was in direct ratio to the number.

Yours,

VERITAS.

Montreal, Oct. 6th, 1887.

Progress of Science.

MENSTRUATION, ITS NERVE-ORIGIN—NOT A SHEDDING OF MUCOUS MEMBRANE.

By JAMES OLIVER, M. B., F. R. S. Edin., Member of the Royal College of Physicians, Assistant Physician to the hospital for women, and Honorary Physician to the Farringdon General Dispensary, London, England.

In every healthful human female, during the so-called childbearing epoch, which extends, on the average, over a period of thirty-two years, the uterus becomes the seat of a periodically recurring functional disturbance, evidenced by the emission of a more or less marked hemorrhagic discharge. As the initial establishment and each subsequent recurrence of this monthly phenomenon is frequently accompanied by symptoms of a general as well as local character, we shall designate under the appellation *menstruation* the whole essential train of events, and not its mere outward manifestation.

The molecular world, organic as well as inorganic, exists in a perpetual state of trepidation, and equilibration of a vital character is the outcome of an inherent power of adaptation. Normally the structural and functional integrity of the organism is maintained by a mutual dependence of the organs upon each other, and according to the manner in which these, each and all, respond to those multifarious changes, which from time to time arise in the environments of the individual. The variations in the waves of molecular motion occurring in every organ, and associated with physiological activity, are radiated to, and affect, however feebly, every ultimate tissue of the body. So completely is this intercommunication, through the medium of the nervous system, carried on, and so apt are the different structures of the organism to perform functions other than those for which they have apparently become specialized, that vicarious compensation may be readily established. In the case of double organs it is a noteworthy fact, with which everyone is familiar, that the removal of one may affect but little, if at all, the well-being of the body; generally the remaining organ at the same time becomes of augmented functional activity, undergoing slight or even well-marked enlargement. This compensatory change will be

manifested, not only by organs recognized as active, but also by such as have hitherto been viewed as obsolete. In many of the lower organisms, where structural differentiation is ill defined, vicarious function is readily fulfilled. The animal may, for example, be turned outside in with impunity, the vital integrity of the organism being still maintained unimpaired—the endoderm, already but feebly specialized, although set apart for assimilation, performing with ease the function of the ectoderm, that of elimination; while the ectoderm, in turn, assumes forthwith the power of assimilation, and discharges effectually a function hitherto foreign to it and performed previously by the inner layer. In the animal economy we see constantly enunciated the fact, too frequently ignored, that functional activity and structural integrity proceed together, hand in hand, and are regulated by a mutual action and reaction upon each other.

If the functional activity of any organ be augmented, but not unduly, the structural integrity will be maintained and be rendered more perfect. Again, the more complete the structural arrangement has become, the more likely we are to find the function actively performed. All visceral activities are now, through habitation, fulfilled in a somewhat automatic manner; and although these transitional states may at one time have excited a conscious sensation, they are at the present stage of evolution wholly ignored by the higher cells of the cerebral lobes which participate in feeling. What is true of one organ of the body is likewise true of all the others. It is, therefore, more than probable that the physiological changes recurring from time to time in the uterus are anticipated by, and in reality the sequence of, a molecular disturbance arising spontaneously in some centre located in the higher part of the cerebro-spinal tract, possibly somewhere in the medulla oblongata. The mere fact that the functions of the uterus may be revealed uninterruptedly after the spinal cord has been completely severed in the dorsal region is no criterion, and cannot justify us in concluding that there exists no representative higher centre. Structural evolution itself forbids the acceptance of such an hypothesis. Like all other nerve-centres fulfilling a similar dispensation, this uterine centre is undoubtedly beyond all volitional control, but is, nevertheless, capable of being disordered by emotional impressions. With this fact everyone is familiar. A sudden shock experienced during menstruation, and apart from any bodily injury, will produce, as I have frequently noted in some females immediate cessation of the flow, and even interrupt for a more or less indefinite length of time thereafter its amount and periodic regularity. The resulting disturbance will depend essentially upon the state of the nervous system and its proneness to molecular instability.

With the approach and appearance of the monthly flow, the whole frame, as one would naturally expect, participates more or less in the change, and the amount of disturbance experienced, as well as manifested, is commensurate with the power the organism possesses of adaptation, and hence of equilibration. The simple determination of blood, because of increased functional activity, to the genital and, in many cases, to the other pelvic organs, of itself produces a definite alteration in the waves of molecular motion proceeding therefrom, and which, radiated in all directions, must necessarily affect the vascular state of other very important structures. In many chronic disorders, of whatever system, affecting the female, every observer must have remarked that, according to the menstrual type of the individual, there is often, either in anticipation or with the appearance of the flow, a proneness to aggravation, or in some very exceptional cases, it may be, to alleviation of symptoms, and with the cessation or disappearance a corresponding gradual reversion to the original already stationary or slowly progressive state. In some few cases the loss of blood may account for much of the disturbance manifested, yet it cannot be the sole factor. In many women, where, from some inexplicable cause, there is for a more or less indefinite period a total suppression of the characteristic discharge, we may dectect frequently such a regularly recurring alteration in the symptoms or manner of the patient as to place beyond denial a direct relationship. In no class of functional disorder do we find so regularly and markedly an interference with the outward manifestation of uterine activity as in *epilepsy*, a disease the pathology of which is still undetermined. It is more than probable, however, that as we may consider the *epileptic female* as *epileptic* throughout, even to the finger-tips, the interruption of the periodically recurring functional change in the uterus is the result of some occult condition of the corpuscular elements governing the activity of this organ, and wholly independent of any defective structural state of the viscus itself. The stuctural integrity of the uterus may, however, eventually suffer, for inaction and overaction alike tend to exert a prejudicial influence.

Gestation, as a rule, although not invariably, determines for a period of nine months a cessation of the monthly recurring flow. Not infrequently, however, we see women who throughout one or more pregnancies continue perfectly regular, the amount or character of the flow being unaltered by the physiological process going on in the uterus. Usually the fertilized ovum affects in some unknown manner the uterine organ, thereafter destined to be its source of nutrition, and the gradual molecular variations so produced are radiated to the uterine centre, alter the corpuscular state, and determine the sequence of events. During the period of lactation, and consequent activity of the mammary glands, we find not only the manifestation of the monthly recurring functional change of the uterus held in abeyance, but also the activity

of the generative glands, as impregnation rarely occurs while the mother continues to suckle the offspring. Should, however, lactation be prolonged indefinitely, the secretion of milk may become more or less habitual, as in the case of the cow, and the generative glands regain their activity. The life of every organism is twofold: first, the maintenance of the individual, and then the perpetuation of the species. The latter, however, is always subservient to the former, and so long as there exists a demand for nourishment from the mother on the part of the child in utero, so long will the reproductive power, as a rule, continue latent. Occasionally, however, I have noted that while the child is being suckled by the mother, the uterus itself, and the generative glands, may throughout continue active; and impregnation resulting, signs of early constitutional enfeeblement are apt to accrue. In inflammation of the mucous lining of the Fallopian tubes with purofibrinous exudation, menorrhagia is frequently an associated symptom, and apparently results from some interference with the nerve-supply to the uterus. In all mammals there are two ovaries, and the oviducts are known as the Fallopian tubes. Each oviduct dilates, on its way to the external surface, into an uterine cavity, which in turn opens into the vagina. In the monkey and man only do we find the two uteri coalesce inferiorly, producing a single cavity, into the fundus of which the Fallopian tubes enter. It is more than likely that the nerves governing the functions of the uterus are transmitted along the Fallopian tubes, and although menstrual disorder may frequently result, with distinct pathological changes existing in these tubes, we must not too hastily conclude that these structures, *per se*, govern the uterine changes.

The true nature of the catamenial discharge is still conjectural; yet its elimination from the body renders it highly probable that, having already served some special end, its detention in the blood may exert some deleterious influence on the animal economy.

It is generally admitted that ovulation and menstruation are coincident; that they may or may not be, I am not prepared to dispute; that, however, they are invariably associated there seems to me much reason for doubt. That the discharge of an ovum may, and frequently does, occur quite independently of menstruation, I have no misgivings. No one would entertain the idea of gauging the reproductive power of the female either from the regularity or amount of the catamenial discharge. I have occasionally noted that women who menstruate with marked irregularity are specially prolific.

It is alleged as an established theorem, that from the period of puberty to the climacteric age there is, besides a gradual death of the mucous membrane lining the whole uterine cavity—which must ever occur to be compatible with life—a more or less regularly recurring and complete death of this coat. In the whole animal kingdom we search in vain for a physiological change truly analogous with this. The serpent, it is true, may shed its skin more or less intact; but ere it casts off the old coat a new one is already regenerated to protect its body from all extraneous injurious influences. In vital structures change is wont to be gardual—creation and destruction proceed together. There is apparently no departure from this inexorable law. Death of the mucous lining of the uterus takes place imperceptibly; the change is one ever going on, as in all organs of the body.

In several cases I have examined uteri removed from women who have died, not only during menstruation, but just before an expected period. In two ca es the death was sudden, the patient at the time being in apparent good health. In three cases the uterine organ was invaded by growths of fibroid character, which were chiefly submucoid. To the naked eye the mucous lining, in all, appeared in every respect like that of a normal uterus examined at any time indiscriminately. In no case did I detect any breach in the continuity of the lining membrane of the uterus, except in those in which this organ had become the seat of fibroid growths. In such the mucous lining had in places become markedly thinned, or even vanished altogether, because of a constant vital pressure exerted on this coat by the underlying new-growth. Here gradual absorption had resulted, very much in the same manner as bone and soft tissues disappear before the constant pressure of an increasing aneurism. I have never at any time detected any evidence of structural change, microscopically, in the inner linings of the uterus, in cases in which this organ has been removed from the bodies of females, who have died either during or just before an expected menstruation. The glands which stud the inner coat of the uterus in its entirety, consisting of columnar cells, lined by a basement as well as a limiting membrane, have, however, shown marked enlargement, in many cases so pronounced, that the outline, not only of the separate cells but even of the gland itself, has been lost. The columnar cells appear swollen, and contain frequently large corpuscular-looking bodies, which I believe to be the simple manifestation of increased functional activity. Prior to cutting, by freezing in gum, the tissues had been hardened for two days in spirits, and finally in a weak solution of chromic acid. The sections I stained in a variety of ways, my best stain, however, and that affording clearest definition, being *iron* and *pyrogallic acid*.

Those who support the denudation theory assert that each recurring monthly flow is anticipated by a fatty degeneration of the mucous lining of the uterus; that blood is extravasated into its substance, and eventually the whole, becoming disintegrated, is washed away imperceptibly with the escaped blood. A new mucous membrane is thereafter by degrees regenerated from the inner layer of the muscular coat, which

in its turn, too, like its predecessor, must undergo a similar degenerative change, and ultimately be removed from the body. Some of the lower animals, it is true, retain the power of reproducing limbs, and possibly other parts of the body removed by accident. If, however, the separation of the part be too frequently practised, we eventually exhaust the power—wholly irrecoverable—the structural integrity of the regenerated limb or tissue becoming less and less marked with each removal. Clinically, if the mucous membrane were shed with each catamenial flow, it must be capable of completing its cycle of degeneration, shedding, and regeneration, in an incredible number of days. Many are the menstrual anomalies which preclude the acceptance of such a phenomenon.

Taking all the facts into consideration, it is more than probable that the recurring monthly discharge in the human female is a secretion, or rather excretion, from the inner lining of the uterus and Fallopian tubes, without degenerative change other than that commonly associated with augmented functional activity, and comparable with that occurring in any other organ of the body under similar circumstances. —*N. Y. Med. Record.*

THE TREATMENT OF PALPITATION.

By Benjamin Ward Richardson, M. D., F. R. S., London, England.

The treatment of palpitation is moral, hygienic and medical, and the value of these stands in the order in which I have placed them.

1. *Moral Treatment.*—In the moral treatment the grand point is to impress the sufferer that there is no instant danger from the seizure; for palpitation is fed by fear, and so little as an expression of fear by the looker-on increases the intensity of the over-action. In like manner all hurry and worry aggravate the symptom, and so, during the attack, the utmost care should be taken to avoid noise,' haste and fussiness. A gentle persuasion toward quietness, a firm assurance that the seizure will very soon pass away, and the best help of an encouraging kind is supplied.

2. *Hygienic Treatment.*—The hygienic measures for the treatment of palpitation have reference to the directions which should be given for warding off the attacks, and for removing the unhealthy conditions of body which dispose toward them. In these directions it is essential to include, first and foremost, the removal of all possible causes of excitement, worry and exhaustion, mental or physical. To this must be enjoined regular habits of life. Early hours for bed are requisite, and a continuance in bed in the recumbent position for eight hours out of the twenty-four at least is very important. During the day moderate out-door exercise, with avoidance of rapidity and of over-action from climbing steep ascents, should be specially enforced.

To the moderate open-air exercise above suggested should be added daily and free ablution in water just sufficiently warm not to create a shock or leave a sense of chilliness of the skin. Brisk friction and the use of a flesh brush may follow the bath with advantage. I would, however, while on the subject of baths, offer a word of warning as to the Turkish or Roman bath in this class of cases. Good as that bath is in cases of disease properly selected for it, it is not good for persons subject to acute and extreme palpitation. The stimulus of the heat has caused in two patients I have known a severe and troublesome seizure.

Meals should be taken at regular times; at no time should a heavy meal be indulged in, and the simpler the diet the better. Some articles of diet in ordinary use should be limited. Too much animal food is bad. Light and easily digested foods, in moderate quantities, and fresh fruits are always good. In one of my cases a trial of a purely vegetarian system of diet had unquestionably a very good result, but as different scales of diet are suitable for different persons, I cannot here lay down any hard-and-fast rule. The plan I am accustomed to follow in prescribing diet is to find out from the patient's own report what articles of diet suit best, and then to use my own judgment, at the time, for advising the selection.

As regards drinks, there are three which, in my experience, are always unfavorable in cases of palpitation. These are tea, coffee, and alcohol in every shape. I know of no cases of the kind in which tea has not proved injurious. Coffee is not so bad as tea, altogether, but there are very few instances in which coffee can be readily tolerated. Alcohol is often much craved after, but it is a most deceitful ally. A little excess of it is prone of itself to excite the over-action without any other spur, and soon after it has been removed from the body it causes a depression which favors a recurrence of palpitation, under any excitement, in the most marked degree. The quantity of fluid taken should be limited in amount; and as to quality, the nearer it comes to water pure and simple the better.

Something requires to be said about mental as well as physical food. Readings, amusements, and pastimes, which keenly affect the emotional faculties, are to be avoided as much as any more plainly physical forms of excitement. Whatever mental food keeps the mind awake, whatever makes the sufferer hold his breath with wonder or anxiety, is bad as bad can be. Exciting novels, plays, exercises, games of chance, should most surely be put aside. But good, pleasant, steady mental work is not harmless merely; it is useful; it prevents the mind from brooding over the bodily incapacity, and it becomes an element of cure.

Under this head of hygienic practice there is one habit, bearing chiefly on the male sex, to which I must allude, and against which it is absolutely necessary to protest. I refer to the habit of smoking tobacco, and to the use of tobacco as a luxury in every way. Tobacco is the worst of

enemies to soundness of heart and steadiness of heart work. To those who are subject to acute palpitation, tobacco is so mischievous that it is hopeless to attempt to treat them until the habit is abandoned. On this point there must be no mistake.

3. *Medical Treatment.*—During an attack of acute palpitation, medical treatment of a direct kind can only be palliative. It is a common practice to place the patient in the perfectly recumbent position, but as this position leads, frequently, to breathlessness and much discomfort, I never enforce it unduly. The sufferers usually find out the best position for themselves, and standing up, and even gentle walking backward and forward commonly appear to bring relief, as if the general muscular action equalized the local over-action.

For the actual palpitation, digitalis is the only remedy I have found of any positive service, and it combines well with remedies which have a tendency to promote quickly the cutaneous and renal excretions. I usually prescribe the tincture of digitalis in five or ten minim doses, with half a fluid drachm of nitric ether, and two fluid drachms of the liquor ammoniæ acetatis. In instances where there has been prolonged sleeplessness, with palpitation, I have combined morphia, in full doses, with digitalis, with good effect, adding the narcotic dose to the formula just named.

In general treatment I am accustomed to follow, whether the heart be organically sound or unsound, the same methods as those prescribed in my previous essay on intermittency. The organic bromides of iron, quinine, and morphia, and the mixture of iron carbonate, ammonia, and morphia (*Asclepiad*, Vol. 1, p. 204) are excellent remedies. The only difference in treatment, in fact, relates to the use of alcohol, which, valuable in some cases of intermittency, is less compatible in cases of palpitation.

4. *Treatment of Epigastric Palpitation.*—The rules already ordered for the management of cardiac apply equally to the epigastric palpitation. There is, however, in cases of epigastric palpitation more frequent necessity to meet dyspeptic symptoms, including flatulency and consumption, by alternative and mild aperient correctives.—*Asclepiad.*

SICK HEADACHE.

By Philip Zenner, A.M., M.D., Cincinnati.

There are few diseases which are the source of so much suffering as that which is the subject of this paper. Beginning usually at an early period of life, most frequently about the time of puberty, it returns as an unwelcome visitor for the greater part of the remaining life. Often it recurs with such frequency and severity as to make existence a terrible burden.

Like most diseases which, in themselves, never lead to a fatal issue, its pathology is very obscure. Hughlings Jackson considers it to be of the nature of epilepsy, and to be caused, as he believes to be true of the latter disease, by a discharging lesion in the brain, in this case, in the sensory area. It must be acknowledged there is much in the manifestations of the disease, the manner of recurrence, and the influences which control it, which lends weight to this view. Of late years the most prevalent view of the nature of this disease is that it is caused by changes in the sympathetic nervous system, and that the paroxysms are brought on by a spastic or paralytic condition of the cerebral blood-vessels. When there is a spastic condition the paroxysm is termed spastic, or sympathetic-tonic; and as further indications of irritation of the cervical sympathetic, it is found that on the affected side the face and ear are paler and colder than on the other side, the eye is prominent, the pupil dilated, and the salivary secretion is very viscid and much increased in quantity. The paroxysm, with paretic condition of the vessels, is termed angio-paralytic, or neuro-paralytic. The paresis on the part of the cervical sympathetic is further indicated by heat and redness of the face and ear, suffusion of the eye, and contraction of the pupil on the affected side.

I have had occasion to examine a large number of cases during the height of the paroxysm, and only rarely, though the headache was distinctly unilateral, have I found decided manifestations of irritation or paresis of the cervical sympathetic. Therefore, I cannot but doubt the correctness of this explanation in many cases, though it is still possible that the pain may be due to varying conditions of the circulation within the skull, while there are no external manifestations of changes in the sympathetic nervous system.

Practically the important consideration is that of treatment. What can we do to ameliorate or to cure the disease? We must consider separately treatment for the relief of a paroxysm and that for the improvement or cure of the systemic condition which causes the paroxysms.

In case of a severe paroxysm all sources of irritation should be removed. The patient should be at rest in a darkened, quiet room; if anæmic, should lie down; if hyperæmic, maintain a sitting position. Firm compression of the head or the application of cold sometimes affords considerable relief. In the spastic forms of migraine, with contracted cerebral vessels, the inhalation of nitrite of amyl, or the internal administration of nitroglycerine, or other remedies which produce dilatation of the blood-vessels, will cause more or less complete relief. In the paralytic forms ergot often acts very admirably. Various other remedies are used whose indications can not be so distinctly given. Quinine, in from five to fifteen grain doses, will often arrest an attack. Many old sufferers with migraine, who have tried almost everything, find greater benefit from this than any other drug. Coffee, or its active ingredients, caffeine and guarana, often relieve lighter paroxysms.

Chloride of ammonium, chloral and croton chloral are of more or less service in most cases. Anstie believed that the administration of twenty grains of chloral, the patient at the same time keeping his feet in hot mustard water, and inhaling the steam from the mustard, was the ideal treatment for migraine. Bromide of potash affords relief in some cases, but it is usually necessary to give very large doses. A new remedy, antipyrine, has proved a valuable auxiliary in our treatment of migraine and other forms of headache. One or two doses of ten or fifteen grains, given at the beginning of an attack of sick headache, will often act like a charm in cutting it short. A still newer remedy, antifebrine, is said to act equally well.

In some very severe attacks, hypodermics of morphia may be called for to procure relief, and even these may afford but very little benefit.

In our efforts to prevent the attacks of sick headaches, or lessen their frequency and severity, we should attempt to remove all the causes which have any influence in their production. In some instances stomach disorders, diseases of the womb or the like, either directly or indirectly, occasion their development. Wherever diseases of this character exist, they should, if possible, be removed.

Special remedies are sometimes used with the idea of preventing future attacks. Cannabis indica is a favorite with some physicians. Its use for a long time is said to have a very decided effect in some cases. I have, myself, very rarely resorted to any specific medication in these cases. When I did so it was to administer the bromides, and only at such times when the headaches appeared to occur with unusual frequency or severity. Periods of this kind, of longer or shorter duration, are not rare occurrences to those suffering with migraine. I have almost invariably found that ten to fifteen grains of bromide of potash, given three times a day at such times, would be productive of much benefit.

Probably the most important consideration in cases of sick headache is that it occurs chiefly in those with a neurotic taint, where there is a history of headache or other nervous diseases in the family, and where the individual is of a nervous temperament and predisposed to nervous disease. Therefore, the important point in treatment is the toning up of the nervous system. Many such patients are anemic, debilitated women, and demand iron or other tonic medication, and a tonic regimen in every way. Hydrotherapy, sea baths, a trip to the mountains, will often prove of great benefit. Headaches are often brought on, or greatly aggravated by the worry or excitement of daily life, sources of ill which cannot be removed; but all such trouble must be avoided as far as possible.

When the disease has been of many years' standing, all our efforts will often avail but little, though the disease is likely to disappear after the climacteric period. It is in the young, when the disease is recent, that we may hope to accomplish most good. In such cases we must attempt to cure the disease before the habit, if I may so speak, has been established. To do this we must not only try to cut short each attack, but by proper habits of life, careful education, tonic medication, etc., so far as possible, eradicate the neurotic basis of the disease.—*Cincinnati Medical News.*

THE TREATMENT OF RHEUMATISM.

By E. S. F. Arnold, M. D.

When the late Dr. Robert Nelson, for many years the Mott of Canada, went to California, I succeeded him in his office in New York. During his absence constant inquiries were made of me for his remedy for rheumatism. On his return I asked him what this wonderful remedy was. He smiled, then simply answered, "Colchicum." Seeing that I was incredulous, he then told me that he had once at the Hotel Dieu, in Montreal, experimented with colchicum, trying all the officinal preparations, sometimes with benefit, but in the main finding all unreliable and often totally worthless. He ultimately tried a strong alcoholic tincture prepared from fresh seed. He found that the shell of the seed contained a volatile oil, that when water was added to the tincture it became opalescent, like tincture of myrrh, and by its use he obtained extraordinary effects. He prepared it by adding to one ounce of the seed half a pint of highest proof alcohol. After standing a fortnight and shaking once or twice daily it was fit for use. Add five drachms of this tincture to half a pint of water, or rather, enough to make a half pint, and of this the full dose is half an ounce. "Now," said he, "if you have a case of acute or subacute rheumatism, give this every four hours, night and day, avoiding acids and giving a light diet until the toxic effects of the colchicum are induced, viz., nausea or even vomiting, with active purging, which occurs generally by the time the sixteen doses are taken, and the rheumatism will disappear like a flash. Up to this period there will be apparently no relief." He cautioned, if I would secure the beneficial effects, always to prepare it myself.

In cases of acute and subacute rheumatism I have never found its equal, also in rheumatic gout. In simple local or chronic rheumatism, I do not expect anything from it. When I was first appointed Physician to the Sisters of Charity at Mt. St. Vincent, on the Hudson, I was shortly afterward called upon to attend the chaplain, a Canadian, between fifty-five and sixty years of age. I found him in a high fever and racked with pain from head to foot. "Ah," he said, "my dear doctor, I am in for a long siege of it. I have had a similar attack of rheumatism once before, and did not leave my bed for three months". I told him I thought we could do better than that. In a few days he was entirely free from pain, and in a

little over a week I found him strolling in the garden in a drizzle, without experiencing any ill effects.

Another case was that of the English foreman in a silk-dyeing establishment. This was built against a dam. Water poured from the wall, at the same time the atmosphere was so full of hot vapor from the vats that a person unaccustomed to it could scarcely see through it. It was a bad place for a rheumatic person. I found the man had rheumatic fever, as he called it, affecting every limb. He told me he once had a similar attack in England and was laid up for six weeks, suffering horribly. He was at his work in less than a fortnight, and was never again, during the many years I stayed in Yonkers, attacked. I have mentioned this remedy to many, more recently to my friend, Dr. Gouley. He says he has found it most valuable, and that he will never be without it.

In the local and chronic cases it is less efficient. In these I have found the St. Catherine mineral water of very great value. A gentleman, about sixty, came to ask me about Sir Astley Cooper's remedy for rheumatism, which was iodide of potassium. I suggested a trial of the St. Catherine water first. He said that as winter approached he was so constantly troubled with rheumatism on exposure, that it confined him during the cold months entirely to the house. He commenced a course of the mineral water, with entire relief, and during the last fifteen years of his life went out in all seasons and in all weathers, without ever suffering any inconvenience. He was never without the remedy in his house, and he told me subsequently that whenever he felt a little bilious he would take a teaspoonful (concentrated) half an hour before dinner. In half an hour after this meal he would have one or two good movements and he felt perfectly well again. He very seldom had occasion to resort to it. Another case was that of a middle-aged French gentleman, who had been a great sportsman, often passing whole days in the marshes. He was ultimately attacked with a rheumatic neuralgia, which seemed to affect the tendo Achillis. He suffered at times for many days with it, keeping him from his business, and endured acute pain. It seemed determined to resist all remedies, both local and general, until I tried the mineral water. He found it horribly nasty, but expericnced so much benefit from it that he persevered, and a cure was effected. Of course I do not recommend these things as absolute specifics, but I have, nevertheless, had great reason in numerous other cases to think more highly of them than any other I know of.—*Coll. and Clin. Rec.*

A READY METHOD FOR REMOVING FOREIGN BODIES FROM THE ANTERIOR NARES.

Physicians are often called to remove peas, buttons, and various substances from the nostrils of children who have themselves introduced them there. A ready method for removing such substances is described by Mr. T. Osborne-Walker in the *Lancet* for Sept. 17, 1887, where he states that recently a little boy was brought under his care with a button tightly impacted in the angle between the vomer and os nasi at the bridge in the right nostril. Ineffectual attempts at extraction had evidently been made, as shown by blood oozing from the nostril, and some, coagulated, adherent to the button, partially concealing its outlines from view, and also by the button being fixedly jammed in. In such cases, to prevent struggles and interruption, the child's arms, hands, and legs should be first confined, by folding tightly round these and the body a long, clean apron, and then placing the child on an attendant's lap, facing a window, while the operator stands behind the patient, and, bending over and depressing with two fingers of the left hand the apex of the nose, to admit as much light as possible upon the object to be removed, with the right hand very carefully, to avoid its descent into the pharynx or larynx, the spoon end (with the concavity directed forward) of an ordinary pocket-case director should be introduced, with which at once with a simple lever movement or jerk the foreign body may be readily ejected.

By attention to the following points the removal is instantaneously effected. The close confinement of the hands, arms, and legs by a shawl, blanket, or apron; a good light; a reliable person to securely hold the child; the position of the operator behind the patient; depressing well the apex of the nose to obtain a good view of the object; and, lastly, getting the concave face of the spoon of a director fairly behind the body before making the forward lever movement.—*Tharapeutic Gazette.*

PHILADELPHIA HOSPITAL.

CLINICAL REMARKS BY WM. OSLER, M. D., Professor of Clinical Medicine in the University of Pennsylvania; one of the Attending Physicians to the Hospital, etc.

TYPHOID FEVER, CASES ILLUSTRATING RELAPSE AND NERVOUS SYMPTOMS; CIRRHOSIS OF LIVER, LATENCY, FATAL HÆMORRHAGE FROM RUPTURE OF A DILATED ŒSOPHAGEAL VEIN.

Two cases of typhoid fever are shown to the class:

Case I. illustrates an important point in connection with the history of this disease, namely, relapse. She was anmitted six weeks ago, and as the temperature chart indicates, had a well-characterized attack of typhoid fever. We cannot distinctly ascertain how long she had been ill previous to admission. When she was brought to the hospital, the chief symptoms were pulmonary. She had a most intense bronchitis, involving especially the smaller tubes. Rales were heard throughout the lungs, and she was cyanosed. We

were at first rather in doubt whether we had to do with a simple pulmonary trouble, or with a complication of typhoid fever. The spots, however, soon appeared, and the disease ran a characteristic course. About three weeks ago, her temperature became normal, and remained so for one week. It was then noticed that she was not so well, and the temperature rose to 102°, and there has been since an evening rise to 103° or 105°, with marked morning remissions.

You must carefully distinguish between a post-typhoid elevation of temperature and a positive relapse, and it is to this point I would especially call your attention. Post-typhoid elevations of temperature occur quite frequently, and may take place within ten days or two weeks after the evening temperature has reached normal. Probably, the most common cause is some indiscretion in diet. A return to solid food is sometimes followed by a slight rise. Sometimes mental excitement or worry will cause it. At times, after allowing the patient to see his friends or to transact business, you will find that the temperature will go up and remain above normal for a few days. In one or two instances, I have seen constipation induce a rise of temperature. In these cases the elevation of temperature is usually the only symptom. There may also be increased frequency of the pulse. The fever, however, is usually transitory, and there are not the well-marked symptoms which characterize the relapse, which, when typical, is a repetition of primary disease. The temperature rises gradually, and may attain a maximum as great as in the original attack. There is usually abdominal tenderness, often diarrhœa, and frequently a re-appearance of the rose-spots. This patient has certainly a relapse which is running a very mild course. The eruption has been well defined, and some spots are still present upon the abdomen. There has been no special abdominal tenderness, and she has had no diarrhœa. She had no recurrence of the bronchitis, but the character of fever and the distinct eruption are sufficient to establish the fact that we are dealing here with a positive relapse, occurred and not simply with a post-typhoid elevation of temperature. There was another interesting feature in this case, namely, that when the relapse occurred she had attacks of epistaxis. The course of the relapse is usually, as I have stated, a repetition of the original attack, but you may meet with many variations. As a rule it is milder, the temperature rarely reaching the same height, and the course of the disease is rarely so prolonged. The majority of cases do well, and a fatal termination is not so common as in the primary attack. In this patient the original attack was mild, and the probability is that she will do well.

Case II.—Of the seven or eight cases of typhoid fever in the wards, this, perhaps, has been the most severe. The patient was admitted to the hospital eight days ago. There is nothing special in his family history, and his personal history is excellent. He was compelled to give up work sixteen days ago. The illnesss began with stiffness in the neck and soreness over the eyes. He did not have much pain in the back or the legs. There was pain in the stomach, and the bowels were constipated, and for the relief of this pills were taken, and the bowels moved freely. He also suffered with epistaxis, and thirteen days ago was compelled to go to bed.

When admitted to the hospital, the face was flushed, the eyes were bright, and he was quite rational. The temperature was 103.4°, the pulse a little over 100°, and dicrotic, and the respirations were not increased in frequency. Examination of the abdominal and thoracic viscera gave negative results. There was neither diarrhœa nor rash. Since admission the fever has been persistently high. He is now at the end of the second week of the disease. The eruption has been quite characteristic, not copious; the abdominal symptoms have been slight, as in most of the cases this autumn. The abdomen is slightly distended, and the spleen is somewhat enlarged. The most serious symptoms which this patient has presented have been those relating to the nervous system. If you watch him for a few minutes you will see that he is very tremulous. This began early in the case. It is best noted about the face, and when the patient responds to a question you will see that the muscles are quivering. When he protrudes the tongue, it trembles. The muscles of the hands and arms are in a state of jactitation, —sebsultus tendinum. This, as a rule, indicates profound involvement of the nervous system. He has had also pretty active delirium. He has attempted to get out of bed, and has had wandering, sleepless condition at night. He has not been in that torpid, heavy, stupid state which is seen in many instances of typhoid fever. The mental condition in the severer cases of the disease is usually one of stupor or semi-coma, or it is one of active delirium. Of the two the semi-comatose condition, as a rule, carries a more favorable prognosis. The active delirium is more serious.

A special condition calling for treatment in this case has been the persistently high temperature. He has been given antifebrin, and it has acted well, reducing the temperature two or three degrees in as many hours. Yesterday the temperature at 8.20 a. m. was 104.4°. He was then given eight grains of antifebrin, and the temperature was reduced to 100° by 11.50 a. m. Three days ago, the same dose of antifebrin reduced the temperature frem 104° to 100° within three hours. The drug seems to have acted satisfactorily as regards the reduction of temperature, but it has the unfavorable effect which most of these new antipyretics have, and which quinine has not, namely, that they produce profuse sweating, which is most distressing to the patient. The patient after the use of one of these drugs may be drenched with sweats as copious as those of phthisis. I have stopped the antifebrin and have resorted

to sponging. This I think will suffice to keep the temperature down. Another symptom which has called for special treatment in this case is cardiac weakness. The pulse has been frequent and feeble, and for this we have given alcohol in repeated and large doses, twelve to fifteen or more ounces in the day, and it has had an influence in quieting the nervous disturbance and also improving somewhat the vigor of the heart's action.

CIRRHOSIS OF THE LIVER.

I have recently shown you two instances of hemorrhage from the stomach in middle-aged men, possibly due to cirrhosis of the liver. Since then I have had several other cases under observation. Two of these cases are quite interesting, and illustrate a point on which I wish to speak, namely, the latency of the affection. One-third, possibly one-half, of all cases of cirrhosis of the liver, coming under observation in any large hospital, are met with for the first time on the post-mortem table. There may have been no special symptoms, or the patient has complained of other conditions, and at the autopsy extreme cirrhosis may be found. Of this there have lately been two interesting illustrations. A man was admitted into the drunkard's ward with acute alcoholism and pneumonia, and died at the end of twelve hours. He was slightly jaundiced, not more so, however, than is frequently seen in pneumonia. He had no œdema of the feet and no dropsy of the peritoneum. At the post-mortem we found in addition to the lesions of pneumonia, extreme cirrhosis of the liver. The organ was very irregular, and in the condition of advanced interstitial hepatitis. The man had apparently presented no symptoms of this affection.

The second case was that of a man aged 44, sent from the surgical wards on account of sudden hæmorrhage from the stomach. He vomited three or four pints of blood, and died within a few hours after admission to the medical ward. When I saw him he was comatose, and the only thing detected on physical examination was extreme reduction in the area of liver dulness. He had apparently had no symptoms except the dyspepsia which all chronic alcoholics have. At the autopsy we found the following interesting condition :

The body was fairly well nourished; there was a small ulcer on the leg, for which he had been under treatment in the surgical ward. There was no œdema of feet; no fluid in peritoneum. Left lobe of liver two inches below ensiform cartilage. Heart and lungs normal. Stomach did not contain blood (a point of interest, as he was stated to to have vomited the blood); the mucosa was pale; no erosions. Veins at the cardiac end much dilated. Œsophageal plexus of veins very prominent, and several large branches were directly continuous with those in the stomach. For three-fourths of the tube the submucous veins were dilated. On the posterior wall was a long varicose vein as thick as a small quill, and at one point this presented a greyish white spot, elevated and covered with a thrombus. A small probe passed into the vein came out through this spot, which represented a laceration in the vein, and no doubt from this had come the bleeding.

The liver weighed three pounds; was nodular, tough, and on section showed an advanced grade of cirrhosis; portal canals were much constricted, and the interlobular connective tissue much increased. The diaphragmatic plexus, the veins of the suspensory ligament, those of the lateral peritoneum, and particularly those over the kidneys were enlarged. The hemorrhoidal vessels were not very much dilated. The vena azygos was large.

In both of these cases the cirrhosis was extreme. The contraction of the ultimate branches of the portal vessels in the liver substance was most marked, and yet there were no symptoms of portal obstruction. The point I desire you to remember is this: that if in any case of cirrhosis the collateral circulation is established, then so long as it is *effectively* maintained, so long will the characteristic symptoms of cirrhosis be absent. There may be no dropsy, no jaundice, and no extreme dyspepsia. In both of these cases the collateral vessels were very distinct. It is chiefly through the diaphragmatic and œsophageal veins, and the communication with the mesenteric and lumbar veins, and by hemorrhoidal veins that the collateral circulation is maintained. In both cases, the anastomoses of these vessels were extensive enough to prevent engorgement in the portal circulation, which is the effective factor in producing dropsy. Dilatation of the œsophageal veins in cirrhosis is a well recognized condition. Communication between the œsophageal and diaphragmatic veins, and the union of these with the azygos veins aids materially in carrying off from the stomach, from the spleen, and even from the liver itself, a large quantity of blood which under other circumstances would pass through the portal circulation. Rupture of an œsophageal varix is a rare but well recognized mode of death in hepatic cirrhosis.—*Phil. Med. News.*

INJECTIONS OF WARM WATER IN DYSENTERY.

Dr. R. Tripier, in the *Lyon Médicale*, writes concerning the action of injections of hot water in dysentery. He sometimes gives, in addition, infusion of ipecac internally. When a patient is able to retain the hot water (heated to 105° or 115°) a sufficient length of time, the pain is immediately relieved, the blood quickly disappears from the stools, and even these soon become fewer. The amount of water injected should be as large as can be borne; from 10 to 12 ounces for children and about a quart for adults.—*Journal de Médicine et Chirurgie Pratiques.*

FIBROID TUMORS OF THE UTERUS.

By W. W. Woodham Webb, M. D., M. R. C. P. London

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The comparatively speedy results obtained by the use of the pole of the battery in the case of hemorrhagic fibroids is very striking. When we see a woman who, in months or years of suffering, has passed through the stages of depression, debility and exhaustion, till at last she lies down in her bed helpless and in despair, rise up after a few applications, with her pains soothed, her bleeding stayed, her countenance brightening, her appetite returning, and the dawn of a new life opening upon her, one is apt to think that medical science has justified itself. Yet it has not by this feat reached the end of its powers, it can respond even to further demands. The woman has still her burden upon her. The surgeon may have recourse to his knife and take it away. But at what risk? Such a risk that only despair will never him to face it, or make the patient submit to it. Those only who have long felt the crushing responsibility of cutting operations, and have had sufficient experience to gain the conviction that a known percentage of recoveries is hardly enough to counterbalance the pains and perils of forlorn-hope surgery, can fully luxuriate in the sensation of relief given by the prospect of being able to control the growth of these tumors and render them harmless by a scathless process. This is for the future to be the work of the negative pole of the battery. And that is not all. Before advancing far with the patient-taxing proceedings against the *corpus delicti*, we have the satisfaction to find the earlier steps lead to such a modification of a certain class of symptoms, and such a change of health conditions as to make the question of time of but secondary importance. With loss of pain and ease of mind, a woman may wait calmly for the restoration of the symmetry of her body.

The second group of fibromas is that in which the leading troubles are those of difficult or suspended menstruation. In some cases the displacement of the uterus is so considerable that no entrance into the cavity can be obtained for cauterization, and the alternative of puncture has to be adopted. The character of the tumor varies. It is sometimes a mere mural thickening, complicated with inflammatory deposits around. In other women there are subperitoneal accumulations and protuberances, or large pedunculated outgrowths. Accompanying them are all the usual functional disorders and nervous irregularities, which take away the enjoyment of life and even make it a burden. But as the most notable distress arises from the periodical pain, the scanty or unnatural discharge, and the local uneasiness which is always present, we begin with attempting to ease that.

Faradization of the uterus may be of use as a palliative remedy, but generallly recourse is had at once to negative galvano-cauterization, of more or less force, and at intervals more or less long, as the patient bears the treatment, and according to the change that takes place. The periods soon become more regular, the intermediate time is less disturbed, the general health improves, and the local distress is not so urgent. Such an amelioration is a great point gained, but we must not stop there. As more has to be done in regard to the riddance of the tumor, the useful but slow-working intra-uterine cauterizations are superseded by the negative galvano-punctures. As Althaus has said, "No animal tissue whatever can resist the disintegrating effect of the negative pole; and the force and rapidity with which the disintegration is brought about are directly proportional to the electro-motive force which is employed, and to the softness and vascularity of the structures acted upon." This action of the negative pole is a double one. The negative electrolytic decomposition of animal substance or liquid give rise to an evolution of bubbles of hydrogen, which mechanically affect the tissues near the pole by insinuating themselves between the structufal elements and driving their fibres asunder. This is a point established by microscopical observation. The second effect is a chemical one—that of the alkalies. These, soda, potash, lime, with the hydrogen, are liberated by the decomposition of the animal matter, and go to the negative pole. The metal remains untouched by them, so that they are all free to act upon the adjacent parts in that manner of potential caustics. An eschar is formed, suppuration takes place, and sometimes a considerable discharge continues.

Such are the notable effects produced at the seat of puncture by the negative pole, and it is this only which in these cases is used therapeutically. Cauterizing action, which would be as powerful at the point of exit of the current at the cutaneous pole, if it issued as dense as it went in, is not wanted. It is, therefore, guarded against by disseminating the current through the intervention of the wet clay. But the main factor in determining a diminution in the size of the tumor is the repeated action of the intense current of electricity which is made to traverse the interpolar tissues. Whatever explanation may be given, the fact is that nutrition is interfered with, the vessels shrink, the form alters, the substance contracts, and the tumor remains smaller to an extent which renders its presence of but little importance. It still exists, but without any disposition to throw out new offshoots orto resume its former power of expansion.

The operator must be guided in his choice of the part in which to make the puncture by the form and situation of the tumor, or by the condition in which he finds the prominent part of the uterus. If it can be done conveniently, the punctures are best arranged on and about the neck of the uterus; if the neck be obliterated, in a series round the orifice; or where the displacement of the organ only leaves the option of a projecting part

of the tumor, then they may penetrate the tumor itself through the expanded vaginal wall. I have mentioned the precautions necessary, and have only to add that the length of puncture used at the present time is much less than it was at first. Rarely is it now found of advantage to leave exposed out of the sheath more than two centimetres of the trocar. This shallow puncturing lessens in a great measure the chance of wounding vessels or passing through the peritoneum. Even when it so happens that, on withdrawing the instrument, there is a flow of blood, it can be at once restrained by introducing a speculum and putting the parts on the stretch, or picking up the bleeding point with a pair of pressure-forceps. Generally the oozing, if there be any, is very trifling and stops spontaneously, and a moderate depletion of this kind is only beneficial.

The cases, of which I give very condensed notes, show what may be expected from the treatment by negative galvano-punctures.

Case I.—Madame P., aged forty six Natural pregnancy at nineteen. When thirty-first signs of abdominal tumor. As the abdomen distended the health declined. Surgeons consulted declared the tumor to be a uterine fibroid, but declined to operate. Gradually grew worse, with all the phenomena of compression; functions disturbed; difficult menstruation, and pronounced cachexia; disabled. Came to *Clinique* June, 1883. Fibrous tumor of uterus attached, not in any way movable, touching at its upper end the sternum, filling the belly and the pelvic basin. Abdominal measurement in line of umbilicus 110 centimetres. Neck of uterus raised up behind pubes and inaccessible to the sound. Puncture inevitable. After three negative galvano-punctures, three centimetres, seventy milliamperes for eight minutes each, the neck of the uterus descended, so that between July, 1883, and July, 1884, twenty-nine galvano-cauterizations, negative, intra-uterine, were possible, and a large and rapid diminution of the tumor took place. Measurement at one time showed a decrease of sixteen centimetres round the abdomen, but the deposition of subcutaneous fat soon brought it up to the point first noted. The tumor became pedunculated and movable, menstruation regular, and the woman was able, while undergoing treatment, to resume her work with ease.

From July, 1884, to December, 1885, thirty-eight negative galvano-caustic applications, intra-uterine, completed the treatment. The tumor went on lessening, all symptoms of pressure disappeared, and the general health was as good as when she was young.

In November, 1886, the tumor was quite free, with its upper border a hand's breadth below the point of the sternum. Menstruation ceased in September, 1885, and she gained weight.

June, 1887, lives as a woman in health, and if we may estimate the reduction of the tumor as one-third, the set off against the remaining bulk of the fibroid is the entire suppression of every symptomatic trouble.

Case II.—Madame D., aged fifty-nine, mother of one child, came to *clinique* December, 1884. Had been ailing all her life. Menopause at fifty-three, when her health became worse, with bad abdominal symptoms caused by a tumor which rapidly formed at that time. Found to be a sub-peritoneal uterine fibroid, passing more than two inches above the umbilicus, fixed, bulging out the abdomen and blocking up the pelvis. The sound revealed excessive thinning of the anterior wall of the uterus, so that all intra-uterine interference was given up for fear of perforation.

Between January and November, 1885, fifteen negative galvano-punctures, one centimetre, were made with a current of from 80 to 100 milliamperes, five minutes. The neck of the uterus being turned up to the left, the punctures were directed into the projecting part of the tumor through the central part of the posterior vaginal wall. No chloroform. Some hysterical and gastric symptoms, which gave way to bipolar galvanization of the pneumogastrics. During the first half year there was a rapid regression of the tumor with corresponding amelioration of the health. She weighed five pounds more, and had a considerable accumulation of abdominal fat. The size afterwards went on lessening till, in December, when all treatment was suspended, the upper part of the tumor had become so movable that it seemed to be attached to the uterus only by a peduncle, and could be pushed, without causing pain, from one side of the abdomen to the other. When at rest the upper margin was more than two inches below the umbilicus, though the whole of the isolated mass could be raised above it. The pelvic section of the tumor was also so much smaller as to leave the uterus disengaged, and to permit the vagina to resume its natural form. Uterine measurement, which was at the first sitting nine centimetres and a half, had shortened to six centimetres, and the thickness of the uterine wall was more uniform.

She remained in good health through 1886. Some narrowing of the cervical canal prevented any introduction of the sound, but caused no inconvenience. A continued contraction of the tumor was manifest. At the present time (June, 1887,) she is quite well, still fatter, and has no abdominal deformity, except that owing to the adipose tissue.

Case III.—Madame R, aged fifty-three, good constitution, no serious disease, mother of five children. Menstruation always natural, till in 1882 she was seized with sudden and violent hemorrhagia. This lasted three years, during which a painful abdominal tumor gradually reached a large size, with derangement of all the organic functions, and loss of strength and flesh. Treatment with ergot did no good. Diagnosis, September, 1885: Interstitial and subperitoneal fibroma of uterus, rising above the umbilicus, distending the abdomen, and on a level with the upper rim of the pubes, inaccessible to the finger. No introduction of sound being possible, negative galvano-punctures were commenced.

From the beginning of September to the end of December, 1885, sixteen punctures, one to five centimetres, with current of from 150 to 200 milliamperes, five minutes, through the vagina. On October 10th, after the fourth puncture, there was total cessation of hemorrhage. Amendment of health began, and the tumor had so much reduced that in December, the neck of the uterus had descended, and the sound could be introduced, showing a measurement of nine centimetres and a half. There was an unavoidable cessation of treatment. It began again in April, 1886, and between that date and the end of July two more punctures were made, and the effect completed by sixteen intra-uterine galvano-cauterizations. After this time nothing more was done. Natural menstruation appeared for the last time on August 10th, lasting four days without pain. At the end of 1886 she was healthy, growing fatter, carrying the remains of her tumor without cause for complaint, and regularly doing her work of *concierge*. In June, 1887, she called to report herself quite well. Her own words were: "Je me porte aujourd'hui aussi bien, en tous points, qu'il y a cinq ans, et sauf la présence du reste de ma tumeur, qui ne m'incommode plus en aucune manière, je me déclare en parfaite santé."

Dr. Apostoli has so recently explained his views as to the application of this mode of treatment to the many forms of chronic metritis, by which women are often as much disabled as by distinct tumors, that I need not repeat his observations. I may only remark that the subject is, perhaps, of even more importance, seeing that the condition is more common, and may generally be regarded as the starting point of definite abnormal formations.

But there is another matter associated with this question of electrical treatment that has long weighed upon my mind; and now, with this opportunity before me, I can not pass it by without a word that may specially interest ovariotomists. I have been as much concerned with ovariotomy as most men, and always, when standing beside the operating table, have had the humiliating feeling which one must be conscious of when grubbing up weeds in a neglected garden. We all know what is the wretched state of a woman with a fully developed ovarian tumor, no matter of what kind. Fortunately, scientific skill has freed the delivering operation of many of its terrors. But the most brilliant performances of our operators only serve to throw a shadow of reproach over the pathological side of the ovarian question. Hanging criminals wholesale never was the means of ridding us of crime. Every good delivery only made place for fresh committals, and mounted up the statistics of social scandal. To strike at the vicious germ of the evil by moral training and education was more efficacious in staying the pest than the utmost perfectioning of the art of hanging. Why should we not see a similar sanitary reformation among ovariotomists? Instead of exhausting their ingenuity in discussing the qualities of ligatures, the merits of various knots, and the advantages of the long peritoneal drop over the external strangulation of the pedicle, just as the sheriff's deputy puzzles himself about the length of his cord and the best way of noosing the necks of his human excrescences, when will they turn more ovariological, and take to the work of seeking out how to repress the proliferous tendencies of the nascent crop of ovarian cysts? It is a task that must be done, and will be done by some one who is duly impressed with a sense of professional responsibility. Is there a gleam of hope in what has been observed in the midst of these electrical uterine operations? Some few times it has happened that an incipient ovarian tumor has been recognized.

The cauterizations or punctures have been made, and the cyst has disappeared. Taking this as a fact, does it not open out a line of experimental investigation worth following up? It requires the disposition, the opportunity, and the devotion of time. Men harassed by the demands of actual practice can not undertake it, but surely there must be some who, in their waiting time, are on the lookout for the way of making themselves men of repute. They might profitably give themselves up to the speculation of projecting in an almost untouched corner of preventive medicine. *Hic patet ingeniis campus.*

The following is a summary of the notes of one of the cases to which I have alluded:

Madame G., aged twenty-eight, good health, married at nineteen, never pregnant, constant lucorehœa; regular menstruation, short and scanty, becoming more abundant after marriage. On examination, uterus found nearly natural, vagina sensitive, nothing wrong on left side, but on right side, in the situation of the ovary, a tumor was easily distinguished, hemispherical, having the feel of a somewhat solid cyst, not very tender under pressure, and easily recognized by its form, situation, consistence, and want of sensibility as an incipient ovarian tumor.

After consultation a vaginal negative galvano-puncture was made to the depth of one centimetre, and a current of 100 milliamperes passed for five minutes. No chloroform was used, and the patient bore what was done without complaint. The sensation to the operator was that of tapping a cyst with fluid. No fluid, however, escaped by the vagina. The patient was a little nervous in the evening, and had some rectal tenesmus, but slept well, and went home at the end of twenty-four hours' rest.

On examination five days afterwards no tumor could be found, and there was no tenderness. It is now nearly two years since the operation was performed. The woman has remained in her usual health, is somewhat stouter, and keeps constantly at her work. At the present time (June, 1887), there was no trace of a cyst on the ight side, but the ovary can be detected on lower-

ring the uterus. On the left side a small tumor about the size of a chestnut, with all the characters of an ovarian cyst, has made its appearance. A little projection on the right vaginal wall marks the spot where the puncture was made.

Finally, and as the result of eight months, incessant observation, and of my own experience in the treatment of cases in conjunction with Dr. Apostoli, I can unhesitatingly assure those who are interested in the question, operators or operatees, that the conclusions at which I arrived at an early period of my investigations as to the value of the therapeutic influence of electricity in cases of uterine fibroids, used after the manner I have described, with a view to introduce it to the notice of English surgeons, are more than confirmed by my longer acquaintance with the subject. It is also worth mentioning that they have met with the assent of all, including such authorities as Sir Spencer Wells, Keith, and Dr. Playfair, who have been induced by what I have written to visit the *clinique*, and examine the evidence for themselves. Some, indeed, have at once resolved to adopt the practice, and others, who are not disposed to undertake a task which requires so much quiet perseverance and familiarity with technical details, have confided their patients to our care. These cases I shall hereafter publish, when time has proved that the benefits received are as permanent as those recorded of his own patients by Dr. Apostoli.

CHRONIC CONSTIPATION.*

By George J. Cook, M. D.,

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The part directly involved in chronic constipation is the large intestine. The contents pass through the small intestine in three hours, and through the large bowel in twelve hours. (Landois.) The contents are liquid in form as they are poured through the ileo-cæcal opening—in the colon, they are exposed to the open mouths of Luberkuhn's follicles, which take up the digested portion that has escaped the absorbents above. The longer the contents are exposed to the absorbents along the colon, the more of the watery portion will be extracted, and the more solid will be the mass of excrement. The secretion from the large intestine is mostly mucus, in quantity sufficient to lubricate its walls. There is not sufficient watery secretion from this part to modify the consistence of the fæces. The consistence of the excremental mass which passes from the rectum depends on the length of time required for the contents to pass from the cæcum to the anus, and the activity of the absorbents. The consistence of fæces should be mushy, or at most only sufficiently hard to be moulded in form.

If the contents pass through the large intestine in twelve hours, and the resulting excremental mass is very hard, the contents have remained too long in this part, whereas, if they should be thirty-six or forty eight hours in passing, and the fæces is of normal consistence, they have remained in the large intestine the proper length of time. The proper time for the contents to remain in the large intestine is modified to an extent by the action of the small intestine. If the peristalsis is very active in the small bowel, and will carry the contents through rapidly, the quantity passing through the ileo-cæcal opening will be correspondingly large, giving the colon more work to do and it will require more time to do it.

If the peristalsis is sluggish in the small intestine, allowing the contents to be exposed to the active absorbents of this part a long time, the quantity passing into the colon will be smaller, and the less time it should remain there. In a like manner, the activity of absorption in both the large and small bowel will modify the time necessary for the contents to remain in the former. Thus the proper peristalsis of the large bowel is modified by the activity of the peristalsis in the small, and absorption in both small and large intestine.

Chronic constipation may be defined as that condition in which the contents remain too long in the large intestine. There are two forms of chronic constipation, viz.: Obstruction and atonic. In the former there is an obstruction to the free passage at some point along the large intestine, while in the latter the passage is free, but for want of proper tone in the muscular structure of the bowel, the contents are not carried along in the proper time. In enumerating the causes of the first form, we will begin on the external sphincter muscle. This little muscle, of wonderful power and endurance, performs an important function at the lower end of the alimentary canal. When natural, it will counteract and relax at the pleasure of the individual, but if irritated, it may pass beyond control, and refuse to relax at the proper time to allow the fecal mass to pass, and form an obstruction which the expulsive force is not able to entirely overcome, and the result is an incomplete defacation.

This irritation of the sphincter may be caused by inflammation or ulceration involving the margin of the anus, or the mucous membrane of the lower part of the rectum. The repeated voluntary contraction of this muscle to prevent defecation at the proper time, an act indulged in by so many persons, and the pressure above of the retained mass bring will about an irritable and hypertrophied condition of the muscle. Contraction at the upper end of the rectum is a cause of constipation, frequently present, but seldom recognized, and usually the result of chronic inflammation in that part of the gut. The contraction prevents the free passage of the contents from the sigmoid flexure into the rectum.

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*Read to the Mississippi Valley Medical Association, at Crab Orchard, Kentucky, July 14, 1887.

Organic stricture may occur at any point in the rectum as a result of ulceration, or of syphilitic or malignant deposit. A very frequent cause of obstruction in females in displacement of the uterus, in which this organ presses down or back against the rectum, sufficient to interfere with the passage of fæces. Large hæmorrhoidal tumors may so obstruct the anal opening as to greatly interfere with the passage of fæces. Among the rarer causes of obstruction are strictures along the colon, from contraction in the calibre of the gut, or from fibrous band across the outside, compressing it.

Atonic constipation may result from a number of causes. The most frequent one, however, is the violation of nature's laws in regard to the evacuation of the large intestine. When the sensory nerves of the rectum indicate that the fæcal mass is passing from the sigmoid flexure, and is ready for expulsion, and the time or circumstances are not convenient, the voluntary sphincter is closed, and farther progress prevented. An occasional occurrence like this may do no harm, but when it is frequently repeated, large quantities are made to accumulate in the colon and rectum, the muscles are stretched, the sensitve nerves blunted, and atony is established. Some persons seem to have a weak muscular development in the intestine, just as some may have a weak organization of the voluntary muscles. Such persons may have constipation almost from birth. Centric causes, interfering with the generation of nerve force, may bring about atony of the intestinal canal.

Both forms of constipation may exist at the same time, and bear the relation to each other of cause and effect. When there is an obstruction, the blocking back of the fæces in the colon and rectum may so stretch the muscles as to weaken them; and if from atony a hard mass is allowed to remain for a length of time at one point, it may cause inflammation and ulceration, which will result in organic stricture, or if this mass is lodged in the rectum it may cause spasm of the sphincters.

Insufficient intestinal secretion is usually given by authors as a cause of chronic constipation. I do not undertand how this can be a cause, nor how they determined that such a condition exists.

As before stated, the contents pass into the colon in a liquid form, and the watery secretion from the large intestine is not sufficient to practically effect the consistence of the fæces. The passage of dry, hard stools is not evidence of lack of secretion anywhere. When there is a lack of secretion from the liver, there may be inactivity of the colon because of the absence of this natural stimulant. At times, when the person is indulging largely in meats and concentrated foods, from which there is little excrement, there may be torpor of the bowels, because the bulk of fæces is less than usual, and not sufficient to excite the colon, but when the person returns to their usual mixed diet, the bowels will act with regularity. Chronic constipation is more prevalent among females than males. This is especially true under the age of twenty. One of the greatest neglects in the home education of young girls is in regard to the function of the large bowel, and its relation to perfect health. To fully appreciate this, it is important to understand the relation of the colon and rectum to the ovaries and uterus.

The left ovarian vein passes behind the sigmoid flexure, close to the descending colon, and empties into the left renal. The right one is shorter, passes close to the cæcum, and empties into the vena cava. These only occasionally have valves. The uterine veins empty into the internal iliac. If the large bowel is constantly filled, the effect on the circulation through these veins is easily understood. The distended sigmoid flexure and descending colon will interfere with the return of blood from the left ovary, and a full cæcum will press the right ovarian vein; a full rectum will press against the internal iliac and uterine veins, and interfere with the return of blood from this organ.

The result of such a condition as this in the generative organs of the female, especially between the ages of twelve and twenty, needs no description. I believe if more attention was paid to the proper performance of the function of the lower bowel in early female life, the gynecologists would have less to do. In the construction of a house, much attention will be given to sanitary plumbing, etc., to insure against the dangers of gas returning from the sewer to affect the health of the occupants, while, at the same time, many of these persons may be carrying veritable privies around within their own bodies. We can observe daily the vicious influence of the poisons from the fermenting and decomposing mass in the colon, manifested by the impaired digestion, faulty assimilation, foul tongue, muddy complexion, and depressed nervous energies.

If we expect to cure chronic constipation, we have first to know the cause, and to know this a thorough examination is necessary, and only when this is done can we proceed intelligently. If an obstruction is found, proper measures must be used for its removal. After this, the colon must be cleared of any accumulations which may be lodged in the saccules. The proper method to cleanse the colon is by injections of hot water, which must be thrown as high as the ileo-cæca valve. Purgations should never be depended upon for this purpose, for it is often impossible to dislodge hard masses with them, and in the attempt we may do harm to the gut; but with water we are certain of thorough cleansing, and no harm can result. When the obstruction is removed, and the colon cleared, it is then in a condition to resume its normal function. But if the bowel has been greatly distended, it may need some assistance to regain its proper tone and strength, and appropriate tonics for this purpose will have to be

given. If an examination reveals no obstruction, then there must be a want of tone or power in the large bowel to carry the contents along in the proper time. In the commencement of these cases also, we must first see that the colon is cleared of any fæcal accumulations, and let me repeat, do not depend on purgatives for this purpose. Purgatives, as taken, are the bane of the human family. After cleansing we must use means to strengthen the muscles of the large intestine, and enable it to properly perform its function, and while this is being done, care must be taken to correct any habits of the individual which may predispose to constipation.

The principles of treatment which we would apply to a weakened voluntary group of muscles are proper for a like condition of the muscular coat of the large intestine. To promote circulation and excite muscular contraction, and also assist directly in propelling the contents of the bowel, we can use massage; at the same time we can add another stimulant, by applying electricity. We have medicines which act directly on the motor centre of the muscular coat of the intestine, this motor centre being the plexus mesentericus of Auerbach, located between the two layers of muscular fibres in the wall of the bowel. (Lindois.) Aloes is a type of these medicines. Nicotine also acts directly on this centre, and promotes peristalsis, hence the pleasure in an after dinner cigar. Other medicines act indirectly through the cerebro-spinal nerves. Strychnia, for instance. The impressions are carried to the plexus mesentericus through the cerebo-spinal nerves, which stimulate this centre, and contraction of the muscular coat is the result.

In this same indirect way, we can promote peristalsis through volition. Our aim in stimulating the muscular coat of the bowel should be to bring about natural contraction, and not spasmodic action.

The natural contraction of the bowel is indicated by the term peristalsis—contracting in successive circles. In this the contraction is gentle, and passes in successive means along the bowel, propelling the contents without irritation to any part. To promote this action we must be careful not to give medicines in too large doses. If the dose is too large, it will cause spasm, which will retard the passage of the contents, and by this hyperstimulation increase the paresis. So, in giving colon tonics, we must begin with small doses and slowly increase until we get the desired result. While we are thus toning up the bowel, we must keep it clear of any fæcal accumulations. For this purpose salines are our best remedies, but care must also be taken with these not to give too large doses, or you will do harm. A goblet of water, with thirty to sixty grains of sulphate of soda in it, taken on rising in the morning, will be carried rapidly along the alimentary canal, and not overstimulate either the muscular or glandular system of the intestine. but will evacuate the large intestine. The quantity of soda in the water renders it more alkaline than the blood, and prevents absorption, and at the same time is not so alkaline as to cause any appreciable flow from the blood into the bowel; and this quantity of water taken on an empty stomach is of sufficient bulk to promote peristalsis, and it is carried rapidly to the large intestine, where it liquifies the fæces, and causes a free evacuation. Salines may be taken in this way for a length of time without harm. They do not tone up the bowel, nor do they in small doses weaken it, except as we weaken any muscle by relieving it of work. When the contents are made fluid, only slight peristalsis is necessary to evacuate them. When the large intestine is inflamed or ulcerated at any part, we should give salines alone when necessary to evacuate it with medicines. The atony in chronic constipation may not affect the entire large bowel, but may be confined to the rectum and sigmoid flexure, or to the latter and descending colon, and great good may be done by stimulating injections. Sometimes we seem to get better results by giving the medicines by rectum instead of through the stomach. In selecting medicines to relieve chronic constipation, we should be careful not to punish the liver and small intestine for the sins of the rectum and colon. Unless we are certain that there is not sufficient secretion from the liver, we should not add a chologogue to the pill; and if we think the contents pass from the stomach to the colon in three hours, we should not stimulate the small intestine.

If atony is due to centric disease of the nervous system, the remedies must be directed there, but at the same time care must be observed to keep the colon and rectum clear. I will not attempt to give formulas, nor speak of the medicines proper to give in different cases of chronic constipation. This can be determined only by studying each case by itself, and knowing the physiological action of medicines.

THE ABUSES OF MILK DIET IN THERAPEUTICS.*

By Roberts Bartholow, M.D., LL.D.,
Professor of Materia Medica, Therapeutics and Hygiene in the Jefferson Medical College.

The therapeutic employment of milk, not only has been popularized, and the lay public made familiar with its various adaptations, but in the wake of the general appreciation has followed the usual exaggerations, and hence it is prescribed with little regard to the conditions properly requiring it. Under these circumstances it seems desirable to indicate the limitations of this therapeutical food, and to show wherein it may be hurtful rather than beneficial.

In certain disorders of the digestive functions, milk causes a sense of discomfort, decided uneasiness, oppression—sometimes even pain, and it

*Journal of Reconstructives, July, 1887

prolongs the morbid condition. The cases of this kind may be grouped into two classes; those in whom the casein is the offending material; those who cannot properly digest the cream or butter. We find examples of the first class among children, but they are by no means uncommon in adults. They are detected the more readily in early life, because the curds are rejected by vomiting, or appear undigested in the stools. Adults unable to digest casein, or who digest it slowly or painfully, have epigastric distress, heaviness and oppression for several hours after meals, stupor and disinclination for exertion coming on after an hour or two, and continuing until the offending material has passed well down the intestines.

An excellent substitute for the milk when the casein disagrees is barley water with cream. The barley water should be carefully strained and have the density of good skimmed milk, and one-sixth or one-fourth cream added, so that the mixture has the consistency of rich milk.

The class of subjects to whom milk is unadapted are the cases of duodenal, hepatic and pancreatic diseases, because of the deficiency in the secretions necessary to the process of emulsionizing fats, and preparing them for entrance into the lymph vessels. Fats decomposing form very irritating fat acids,, and the change in the reaction of the intestinal juices is the cause of various secondary troubles in the biliary function and elsewhere. To fit milk for use under such circumstances, it must be skimmed, and about the time the stomach digestion is completed, aids to the intestinal digestion should be administered. Such aids are a soda alkali and, it may be, some pancreative solution to effect complete digestion of the fatty constituents.

The mere bulk of the milk is an objection to its use in certain diseases. In dilatation of the stomach, the space occupied by the necessary quantity perpetuates the disease. The reflex effects of distention of the stomach in cases of weak heart and in angina pectoris, may not only cause distressing symptoms, but may even prove fatal. It cannot be too strongly stated that milk is a highly objectional aliment in heart disease, whenever the motor apparatus of the organ is diseased, and whenever its movements are readily influenced by morbid states of the stomach through the reflex channels.

In no malady, as I conceive, is milk more abu ed than in acute rheumatism. It is very often then the chief—sometimes the only—aliment employed during the whole course of this disease. Besides the objection inherent in its mere bulk, certain theoretical considerations of its nature should have considerable weight in deciding the question of use. The very obvious objection that milk furnishes lactic acid as a produ t of its fermentation should not be ignored. All the world knows the intimate relation between lactic acid and the rheumatic poison. By the introduction of lactic acid, a form of endocarditis, not distinguishable form the rheumatic, is set up, and of those diabetics treated by lactic acid, a considerable proportion suffered from attacks of rheumatic fever (acute rheumatism). It is difficult, of course, to determine this point with certainty, but I have reason to believe that patients with rheumatic fever do not get well so quickly, and are much more apt to have relapses, when they consume much milk during the course of this disease. Surely, sufficient reasons exist for undertaking a thorough investigation of the question. My own practice, in the cases in which I am consulted, is to advise against the use of milk as an element in acute rheumatism.

In typhoid fever, milk is one food now given irrespective of the character of the cases. Of late this almost universal practice has come to be challenged. It has been depended on, without investigating the state of the digestive functions, and quite unmindful of the effect it may have on heat production. It is often given in too great quantity at a time, or so frequently that the stomach has not disposed of one quota before another is thrust upon it. Unless the gastric juice has preserved to a considerable extent its power of converting the albuminoids into peptones —which we have no right to expect—the casein resists its action; hence it follows that material of digestion should be administered soon after the milk is taken, and to prescribe without reference to the ability of the stomach to dispose of it is to insure increased fever and delirium, and more frequent stools. Besides supplying the means for proper digestion of the milk, attention should be given to its administration at such intervals that every portion given may be disposed of before another is permitted to enter the stomach. It is a trite observation, which is not therefore less true, that it is more important to the nutrition if some food be well digested rather than a large amount be merely swallowed.

Notwithstanding, since Donkin's first reports, milk has entered largely into the dietary of diabetics, its utility has recently come to be seriously questioned. If conversion of milk sugar into grape sugar does not take place, there can be no doubt of the value of milk in this disease, since it possesses so great a number of alimentary constituents. If, as is now asserted, this conversion does take place, the free administration of milk in diabetes must be regarded as an abuse.—*Coll. Clin. Record.*

BORACIC ACID IN THE TREATMENT OF LEUCORRHEA.

For months past, I have made frequent use of boracic acid in the treatment of leucorrhea in a manner hitherto unmentioned, at least so far as has come under my notice, and with surprising success; in every case where I applied it, prompt and permanent improvement resulted.

Having had some excellent results from the boracic acid packing in chronic suppurative otitis,

I determined to resort to its use in a similar way in a case of leucorrhea, which had for several months resisted a most perserving use of the regular orthodox remedies —*i. e.*, nitrate of silver, tincture of iodine, fluid hydrastis and bismuth, hot water irrigations, etc. The experiment was eminently successful, and the patient returned home within a fortnight well and happy, and has so remained ever since—many months—during which time I have had occasion to resort to the remedy frequently,and with uniformly good results.

My manner of using it is as follows: Having first irrigated the vagina at as high a temperature as can well be borne by the patient, a cylindrical speculum is introduced, and the vaginal walls very carefully dried, first with a soft sponge and then with absorbent cotton. This done, boracic acid in crystals is poured into the mouth of the speculum, and pushed up against the uterus and vault of the vagina with a clean cork caught in a uterine sponge carrier, sufficient acid being used to surround and bury the intravaginal portion of cervix, filling the upper part of vagina. A tampon of absorbent cotton is then firmly pressed against the packing, and held *in situ* until the folds of the vaginal walls close over it as the speculum is with drawn.

This should be allowed to remain three or four days, or even longer, as after this time there still remain some undissolved particles of the acid; nor will the tampon seem at all offensive. The ostiom vaginæ, if examined in twenty-four hours, instead of being besmeared with the leucorrheal secretion or discharge, presents a clean appearance, and bathed in a watery fluid which begins to appear several hours after the packing has been placed; and, in my cases, this was the only discharge noticed afterward.

However, a second, or even a third, repetition may be necessary; but in none of my cases, numbering nearly a score, have I found more than a second packing called for, and in many one sufficed; and in no instances has it occasioned pain, not even inconvenience. I do not claim for this agent and method infallibility, nor should constitutional dyscrasias be ignored, and this local treatment be depended on unaided to effect a cure; but here, as in the treatment of leucorrhea by other remedies, a proper association of all means having a curative influence upon the disease, constitutes the rational therapeutics. My individual experience with this remedy in the treatment of leucorrhea, through limited to too few cases to establish its universal efficacy, if such a wide range of power can be clamed for any medicine at any time, none the less proves it as one of the agents which, when properly employed, promises much in the treatment of the annoying and, sometimes, intractable conditions constituting the pathology of leucorrhea, particularly when the change is in the vaginal glands or mucous membrane, or from intracervical inflammation. Nor will harm likely result from its use, though it fail in maintaining the place my experience would give it.—*Schwartz, in St. Louis Cour. of Med.*

CAUSE AND CURE OF A CERTAIN FORM OF BACKACHE.

By Sir James Sawyer, M. D., F. R. C. P.,
Physician to the Queen's Hospital, Birmingham.

Early in the year 1881, in a note which was published in a weekly professional journal, I asked the attention of my brethern to a form of backache which had not, so far as I know, been described before. I desire now to refer to this subject again, and to record that my further experience in practice has confirmed my previous remarks upon the point in question.

Subjective symptoms are always important diagnostic signs, and they are often clear therapeutic indications. Among such sensations, backache is frequently a leading symptom, and also one which is pressingly dwelt upon by patients. Of backache there are divers forms. Dr. George Johnson, in an able clinical lecture, and Mr. William Squire, in a practical memorandum, have drawn the attention of the profession to many of these. But they have not mentioned a variety of backache in which the cause of the pain is traceable to the condition of the large bowel. I find that some patients complain of a pain, aching, dull and heavy in character, and extending "right across the back." When asked to point out its position they indicate this by carrying a hand behind the trunk and drawing the extended thumb straight across the back, in a transverse line, about halfway between the inferior angles of the scapulæ and the renal region. This pain I venture to attribute to a loaded colon; I conclude I have correctly found its proximate cause in fæcal accumulation in the large intestine. I have found it to disappear after the exhibition of an efficient cathartic. This form of backache is a concomitant of habitual constipation, and is especially significa nt of the alvine sluggishness of sedentary persons. In such a condition as I have stated elsewhere, I find aloes, given in combination with iron, to yield the best results. We owe the valuable suggestion of combining iron with aloes when aloes is given for laxative purposes,to the late Sir Robert Christinson. He showed that the cathartic property of aloes is much increased by its combination with sulphate of iron. Dr. Neligan, Dr. Kent Spender and Dr. David Bell have confirmed this experience. I prefer socotrine aloes, and I give of it one, two or three grains in a pill, combined with a quarter of a grain of sulphate of iron, and one grain of extract of hyoscyamus. This pill should be taken every night. We must aim at producing a full alvine evacuation after breakfast. When a saline cathartic is indicated, I usually employ the old-fashioned Rochelle salt. This "goes" well with tea, coffee or cocoa. One or two tablespoonfuls may be taken at breakfast, dissolved in a large cupful of one of these beverages.—*Lancet.*

TREATMENT OF PSOAS ABSCESS.

This much disputed question was brought up recently at the meeting of American Orthopedic Association and clicited views differing most widely from one another. Dr. H. Hodgen of St. Louis, inclined to the belief that the proper method of dealing with them was by early aspiration.

The treatment, although not new, had not he thought, received the attention it merited. The three methods of treating such abscesses were :

The expectant, the operative with drainage, and aspiration as soon as the diagnosis of vertibral disease could be made and the presence of pus detected. The objections to allowing the abcess to take care of itself were that there was destruction of tissue, that there was interference with function, and that there was inconveience if not pain to the patient. The uncertainty as to where the abscess would burrow was also an objction to the expectant plan ; it might bnrrow under Poupart's ligament, or point in the gluteal region and do no harm, yet it might enter the bladder or the intenstine. In one of his cases he believed it had opened into the hip joint of the same side with the abscess. In each of his five cases the result after from two to five aspirations had been good. No evidence was left of their ever having been psoas abscess. He would not aspirate more than four, five or seven times ; after that he would put on the plaster-of Paris jacket and let the abscess alone.—*Weekly Medical Review.*

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NEW HOSPITAL IN TORONTO.

The Toronto daily papers state that a new Hospital will shortly be erected in that city. The Hon. John Macdonald has inaugurated the scheme by heading the subscription list with a donation of $40,000. It is expected that the sum of $150,000 will be required, and the University of Toronto will give the required ground.

OBITUARY.

DR. FRANCIS J. NELSON.

News has just reached us of the death of Dr. Francis J. Nelson, late of Montreal, in Canon City, Colorado, August 28th, from pulmonary hœmorrhage.

The late Dr. Nelson was born in this city, Nov. 25th, 1861 ; He came of a family well known in Medicine, he being its tenth physician. He was third son of the late Dr. Horace Nelson of this city, and a grand-son of the late Dr. Wolfred Nelson, a former Mayor of Montreal.

With his brothers, Drs. Wolfred and George W. Nelson, he matriculated in the Medical Faculty of Bishop's College, in this City. Study and our severe winters told on his delicate constitution ; under medical advice he left Canada, and proceeded to Atalanta, Georgia, where he graduated, in the Southern Medical College in the spring of 1884. Later he settled in the Ojai Valley, in Southern California, and had established a fair practice, when the hereditary enemy of his house, consumption, marked him out. He reported some improvement in Colorado, but a sudden hœmorrhage closed his career, while yet in the bud.

Dr. G. O. Beaudry, Professor of Physiology at the Montreal School of Medicine and Surgery (Victoria College), died on the 26th of November, of Typhoid fever, after an illness of three weeks. Dr. Beaudry will be much missed by his confrères, especially by those of his school, for he was an active worker in their interest.

PERSONAL.

Dr. Codd, Surgeon of the Mounted Infantry School at Winnipeg, has been appointed President of the Military Medical Board for the investigating of claims, arising from wounds received and sickness contracted while on service during the late Northwest Rebellion.

Dr. Rollo Campbell (M. D., Bishop's, 1887) sailed for Europe by the Allan Mail SS. Parisian. on the 10th Nov. He is at present working at the London Hospital.

Dr. Duncan (M. D., McGill, 1885) has been appointed Surgeon of C. Battery Canadian Artillery recently organized, and which is stationed at Victoria, British Columbia.

Dr. Sutherland, of Winnipeg, has been appointed Resident Physician to the Manitoba Penitentiary, at Stony Mountain.

Dr. Kerr, of Winnipeg, proposes leaving tha city, to settle in Washington, U. S.

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CLINICAL LECTURE.

On Pityriasis Versicolor.

Delivered at the Montreal General Hospital, Oct. 11th, 1887.

By F. Wayland Campbell, M.D., L.R.C.P. London, Professor of the Practice of Medicine in the Medical Faculty of the University of Bishop's College.

This disease is characterised by yellowish-brown spots of variable size, slightly, if at all, raised above the surface and scattered over the chest, abdomen, upper extremities and back, and slightly desquamating in the center. We sometimes meet with cases where the patches are very large, scarcely broken by a patch of healthy skin. Fortunately the disease rarely attacks the face. It is seldom, if ever, met with in very young children, is most common in adults, and very rare in advanced life. It is met with among those who perspire freely. The disease is due to a fungus, which seems to require a dry location for the performance of its work. The reason why the disease does not appear on the face and hands is the fact that these parts have soap and water freely applied to them, and thus the uppermost epedermic layers in which the fungus has its seat are worked off. In men it is sometimes met with in the genitals, that is on these portions of the thigh, on which the serolum rests. Here the skin often acquires a brownish red or copper color. In females it is common on the pubic region and on the Labia majora. The spreading of the spots is often slow, though I have seen it attain considerable dimensions in a very short time. In the fall and winter the disease is most generally met with, on account of less bathing and warmer clothing. The fungus of this disease is called *Microsporon "Furfur."* Pityriasis Versicolar may be confounded with macular syphilide, and pigment remnants of other eruptions. Its decided brown color, slight desquamation and easy removal of the upper layer with the finger nails, will readily prevent an error in diagnosis.

Treatment.—The great object should be to cast off the upper layers of the skin in which the "microsporon" has its seat, and for this purpose, I know nothing superior to a lotion of ℥ s to ℥ j of Hyposulphite of Soda to an Oj of water. This lotion should be freely applied to the spots by means of a fine sponge, several times daily. Yesterday, I had at the out-door clinic, a woman, who on the 3rd of this month presented herself to me, with well marked Pityriasis Versicolar, principally on the chest and shoulders, and for whom I prescribed this lotion; its effects was everything that could be desired, and on her return yesterday she was practically cured. The case before you now you see for the first time to-day. I shall adopt the same treatment and in a week I hope to be able to show her to you perfectly cured. Frictions by green soap—with a copious bath daily, will at times be found useful. Ointment of chrysarobin ten to 20 per cent., pyrogallic acid, five to ten per cent., salicylic acid of like strength and thymol of five per cent. are all useful, but my experience is decidedly in favor of the lotion of the Hyposulphite of Soda.

LUPUS.

The morbid process consists in the fact that the skin is penetrated by a specific virus at present

unknown, but believed by many to be identified with the bacilla of tuberculosis. This virus excites inflammatory action and thus gives rise to small patches of inflammation generally situated along the course of the vessel. On the other hand, it is looked upon as being the cutaneous manifestation of a strumous diathesis. There are several varieties of this disease, but the variety that attacks the nose, as a rule, may be lupus maculosus and exfoliativus, which latter is the form we have in the case before us. There is first an infiltration on the ala or the dorsum of the nose. With the absorption of the infiltration there is shrinking, mutilation and diminution of the nose. Before this occurs, however, there is a small yellowish red papule, which appears near the ala, and these very often coalesce till they assume a prominent and elevated patch or else the volume of the nose is increased. This organ is now brownish red in color, irregular, with knobby elevations, the surface rough, with small ulcers covered with thick crusts. These ulcers continue to eat their way behind these crusts, and when at last they are removed the destruction of the nose has been all but complete. Lupus is much more common in females, than in males. The prognosis is generally favorable, though the disease is, in every case, in danger of recurring.

Treatment.—Has two objects: 1st. To arrest the development and progress of the pathogenetic virus. 2nd. To destroy the morbid products already deposited. To accomplish the first object, it is necessary to destroy locally the virus, and give medicine internally. Iodoform is highly recommended, Pot. Iod. is an old but useful remedy. It must be taken for a lengthened period. Cod liver oil, with or without the addition of pure iodine or creosote, arsenic, iron, quinine, also general diatetic treatment. To remove the virus, we must destroy the morbid products already produced. For this puspose caustics are the best. Do not use Caustic potash or Vienna paste. A combination known as Cosme's paste, modified by Hebra—composed of white arsenic, artificial Cinnabar, and fat is highly recommended, because it does not destroy healthy skin. Nitrate of silver is next to useless, for the action of the silver does not extend beyond the part treated. Pyrogallic acid is perhaps the best local application. It destroys all Lupus tissue, and spares the healthy skin. Moreover its cicatrices are slight—soft and smooth. It is best applied in the form of a 10 per cent. ointment applied spread on linen. It should be tied firmly to the diseased part, and changed night and morning for three or four days. By this time a black deposit lies upon the surface. The pain during this application is slight, it does not begin usually till the third day, and continues only when the ulcerated surface is uncovered. As an after dressing carbolic acid or thymol or iodoform, either powder or a 10 per cent. ointment or an ointment of v gr. of Biniodide of Mercury to the ounce of lard. On the other hand if the diseased part is small, it is suggested to bring the surgeon's knife into play and excise the part. Dr. George H. Fox, the well-known Dermatologist of New York, says: "much destruction of tissue and consequent disfiguration might have been spared in hundreds of cases by a timely use of the knife," whether the part be removed by the knife or by cauterization—the exposed surface will not as a rule heal up under three weeks.

THERAPEUTIC CLIPPINGS FROM THE LONDON (ENGLAND) HOSPITAL.

(*Specially reported for the* CANADA MEDICAL RECORD, BY DR. ROLLO CAMPBELL.)

Dr. James Anderson frequently prescribes the following combination in the Dysmemorrhœa of Amæmia.

Mist. Ferri Co., (Griffith's Mixture)	℥ ss.
Decoct. Aloes Co.,	℥ ss M.

Signe Ter in die.

Chorea is at present very prevalent in London and the plan of treatment which is followed in the London Hospital is rest, good food and Liq. Arsenicalis, either alone or, if the patient be anæmic, in combination with some preparation of Iron (e. g. Ferri et Ammonia Citrate.) If the chorea movements are very severe and prevent sleep, Potass. Bromid. is prescribed with the Arsenic.

Dr. Stephen Mackenzie is at present testing the therapeutic powers of Antipyrin, Antifebrine, Salol and Salicylate of Soda, in the treatment of Acute Articular Rheumatism.

In a case of Eczema Impetigo Dr. Mackenzie directed the following plan of treatment; first soften the scabs with some oily application, then wash it (oil) off with tepid water and lastly apply

Unguentum Zinci Oleatis. (Zinc. Oxid. grs. xxx. Oleic Acid. ℥ ss. Vaseline ad. ℥ i.)

In Pediculosis Capitis, Dr. Stephen Mackenzie uses the following test to distinguish the ova found on the hairs, from the small scales found on the hairs in Seborrhœa Eczema and Pityriasis. If it be an ovum, this being attached to the hair by an albuminous substance or collar will allow of its being slipped up and down the hair without falling off; if it only be a dried scale found in Seborrhœa it will at once fall off on attempting to move it.

Mr. Mansell-Moullin, surgeon to the London Hospital, says that as a general rule ulcers situated on the lower extremity (leg) above its middle are syphilitic in origin.

The following is a good rule, laid down by Paget for applying passive movement to stiff joints, "if the affected joint is at any one time of the day, colder than the opposite (healthy) one, then you can use passive motion, and the more frequently the better.

In a case of Lichen planus, with smooth flat lapped, shining papules, accompanied by pigmentation and itching, Dr. Mackenzie advised the use of Liq. Carbonis Detergens, Carbolic Acid, or the Unguentum Zinci Oxidi.

There is at present in the London Hospital a man suffering from that very rare skin affection known as Hyroa. He is being treated at present by daily hot baths, in which he remains for several hours, after which the affected parts are smeared and kept covered by some oleagenous preparation. He was formerly on the Arsenical treatment and improved for a short time, and when Arsenic failed Iodide of Potassium appeared to exert a beneficial effect, but this remedy has lost its power, and warm baths are now alone used.

The following recipe, from the Pharmacopœia of the London Hospital, is of occasional service

℞. Gallic Acid.	grs. x.
Diluted Sulphuric Acid.	M. x.
Tincture of Opium.	M. v.
Distilled Water.	℥ i. Mix.

For one dose.

The following is a very useful astringent mixture for use in Intestinal Hemorrhages, etc.

℞. Acid Sulph. Aromat.	M. xv.
Spts. Chloroformi.	M. xx.
Tinct. Camph. Comp.	℥ i.
Decoct. Hœmatoxyli ad.	℥ i, M for a dose

"Mistura Bismuthi Compositor."

℞. Bismuth Subnit.	
Magnes. Carb. aa.	grs. xv.
Pulv. Tragacanth Co.	grs. x.
Tinct. Calumb.	m. x.
Acqua Chloroformi ad.	℥ i. M. For a dose.

Progress of Science.

RECENT ADVANCES IN THE TREATMENT OF PULMONARY CONSUMPTION.*

By Solomon Sokis Cohen, A. M., M. D.,

Lately Chief of the Medical Clinic, Jefferson Medical College Hospital, Philadelphia.

Whether our efforts be directed toward cure—that is, toward putting our patients is a condition that permits them to recover; or whether we aim at the prevention, which is better than cure; excluding from consideration measures purely palliative, the objective therapeutic point may be summed up in one word—Nutrition. Of those methods intended to promote nutrition, first in importance comes the subject of superalimentation; to which the prominent attention it deserves was directed by Debove's communications upon forced feeding, or gavage, in 1881 and 1882.

Debove being convinced that many consumptive patients, despite loss of appetite, maintained comparatively good powers of digestion and assimilation, determined to resort to mechanical feeding. He therefore passed into the stomach, through the mouth, a flexible rubber tube connected with a funnel (such a tube as had been employed for lavage—washing the stomach—and the method of introducing which will be described in the latter connection); and by this means introduced much larger quantities of food than the patients would voluntarily swallow. The taste of the aliment thus administered becomes a matter of no consequence, and we are, therefore, able to select that which will give the most nutriment in the smallest bulk. Meat powders were adopted as the basis of Debove's nutritive mixtures; but milk, eggs, soups, and farinaceous powders may be used, either separately or in conjunction therewith. When necessary, pepsin, pancreatin, hydrochloric acid, etc., may be added, or peptonized aliments be employed. A mixture that was

* Read before the Medical Society of the State of Pennsylvania, June 30, 1887.

used with advantage by Dr. Stern, of Philadelphia, and myself, in the cases of two patients treated at the Philadelphia Polyclinic, consists of a quart of milk, two tablespoonfuls of beef powder, three eggs, fifteen grains of scale pepsin, and thirty drops of dilute hydrochloric acid, warmed, and administered twice a day; the patient eating what he wished in the interval. In hospital service forced feeding is practised three times daily, but in private practice, we must be content with what is possible.

Meat powders may be purchased in the shops, or can be prepared at home by cutting boiled meat into little pieces, drying thoroughly by means of a water bath, and grinding in a coffee mill. Powder so prepared is said by Dujardin-Beaumetz to answer its purpose very well. The farinaceous powders used in France are prepared from cooked lentils, malted lentils, and maize. I have no personal experience with them, but they are said to be highly nutritious. About seven ounces of the alimentary powder, whether meat or farina, or both, are mixed with a quart of milk or water, the milk being added slowly to form a paste, which afterward dissolves readily in the additional liquid. When the long tube of Debove cannot be passed, or when patients will not allow it to be passed, it often suffices simply to pass the entrance of the œsophagus with a shorter tube, as recommended by Stoerk; or to make use of the special apparatus of Dujardin-Beaumetz or Bryson Delavan, which consists of a glass jar with two tubes; one of which, above the level of the fluid, communicates with a hand-bulb for supplying compressed air, the other, below the level of fluid, communicating with a short œsophageal sound of small calibre; an ordinary rubber catheter will answer at a pinch. When the bulb is compressed, fluid food is driven over. Efforts of swallowing on the part of the patient will facilitate the process.

From the reports made by reliable observers in France and elsewhere, as well as from a few cases under my personal observation, I feel no hesitancy in affirming that remarkable gains in weight may be obtained from forced feeding, and that very often there will be concomitant recession in febrile and other phthisical phenomena. Improvement in physical condition of the lungs has been reported, but I have never succeeded in keeping a patient under the treatment long enough to verify this by personal observation. American patients in private or dispensary practice are not as tractable are foreign ones, in these matters, and I have no opportunity of conducting the treatment of phthisis in hospital wards. To secure the benefits of superalimentation with the great run of patients, I have had to employ alimentary mixtures similar to those of the gavage process, by natural methods. The dietary advised is a largely nitrogenous one, of which beef, raw or rare, broiled or roast, forms the principal item; there being added sufficient milk, eggs, fish, lamb, mutton, leguminous vegetables, and greens; fruits in season, large quantities of butter, with small quantities of bread, potatoes, and starchy foods in general. Alcohol is employed as a food when it is necessary to obtain force with the least expenditure of digestive energy.

Fried foods of all kinds, pastry and other indigestible matters, are of course prohibited. Patients are advised not to allow more than three hours to pass without taking food, except during sleep; to drink a glassful of cream or milk, or cream punch, milk punch, or egg nog, just before going to bed, and to have milk at hand to drink in case of waking during the night or early morning. Not more than three set meals daily are advised, but in the intervals milk, with or without alcohol, chicken soup, bouillon, rich broths, are administered; as a vehicle usually, for the beef-peptonoids of a well known firm of American manufacturing chemists. Of this preparation it is endeavored to give not less than two ounces daily, and the amount may be increased as circumstances require. Various preparations of meat juice purchased in the shops, or prepared at home, may be used in the same manner, according to indications. The aim of the treatment is to supply enough nutriment not alone to counter-balance current waste, but to make up previous excess of waste over repair, and the details must be elaborated in each case with regard to individual condition. Cod liver oil, we well know, is an advantageous addition to the dietary in some cases, but not so many as we have supposed. At least it is not indipensable. Oleaginous inunctions are often of considerable benefit.

When overfeeding by natural methods fails, or when the patient is unwilling or unable to swallow the necessary quantity and quality of food, resort should be had without hesitation to the œsophageal tube and forced feeding.

But having supplied the proper kind and amount of aliment, we must place our patient in a condition to digest and assimilate it. It is true, as already suggested, that we may make use in certain measure of predigested foods, and that we may assist digestion in other instances by the administration of the digestive ferments; but our endeavors must not cease there.

The problem before us naturally divides itself into three parts: First, the preparation of the digestive tract, to elaborate and to absorb the chylous fluids—primary assimilation. Second, the promotion of the complex process of the breaking down and displacement of imperfect tissues and effete products, and replacement by new and vigorous tissues, with evolution of forces required in the economy; *i. e.*, metabolism—secondary assimilation; and third, the promotion of the excretion of waste products.

The first desideratum is endeavored to be secured by methods which cleanse, disinfect, and stimulate the digestive canal; varied in detail according to circumstances. When we have reason to sud-

pose, for example, that a sluggish gastric catarrh interferes with digestion, washing out the stomach may be practised with good effect. The procedure is quite simple. A stomach-tube of similar material to French catheter tubing, about 28 inches long, and from ¼ inch to 7-16 of an inch in diameter, is attached, by a short section of glass tubing, to a soft rubber tube about one yard long, in the extremity of which is inserted a hard rubber funnel of about six-ounce capacity. The stomach-tubes having been dipped into warm water or warm milk, is introduced into the œsophagus and propelled by successive pushes, or swallowed by the patient; and the funnel being sufficiently elevated, from a pint to a quart or more of warm water (100° F.), in which is dissolved a drachm or two of borax, table salt, or baking soda is slowly poured into the funnel. As the last of the fluid is passing out of the funnel, the latter is rapidly inverted over a receptacle on the floor, and the contents of the stomach are thus siphoned out. The manœuvre is repeated until the returned water is clear. This process, called lavage, which, as already stated, suggested gavage, and is practised in much the same manner, leaves the gastric mucous membrane in excellent condition for digestion and absorption. It may be immediately followed by gavage, as recommended by Dujardin-Beaumtz. The drinking of half a pint to a pint of hot water, half an hour to an hour before meal time, will sometimes accomplish much the same purpose, and is, of course, less troublesome.

When a condition of septic fermentation is believed to interfere with digestion, a suitable antiseptic agent, such as carbon-disulphide water or solution of hydrogen dioxide, may be introduced into the lavage solution, and a portion allowed to remain a few minutes in the stomach; or creasote, carbolic acid, iodoform, the solutions mentioned, or other agents may be administered in the ordinary way. When the intestinal canal is believed to be the seat of the trouble, we may attempt to wash it, indirectly by lavage, or by potations of hot water, or to medicate it with creasote, bismuth, sulphocarbolates, mercurials, iodoform, sulphides, naphthalin, or other appropriate drugs. I have reason to believe from the effect produced upon some cases of phthisis attended with diarrhœa, that the injection per rectum, of hydrogen sulphide, directly or indirectly arrests septic fermentations, in the small intestine.

To aid digestion, stimulate digestive secretion, and promote absorption, in addition to the measures already referred to, preparations of malt, Hoffmann's anodyne, bitter tonics, nux vomica, arsenic, preferably Fowler's solution, iron, nitro-hydrochloric, nitric and phosphoric acids, trinitrin, and other appropriate medication may be employed when indicated.

Nutriment being administered, digested, and absorbed into the blood, must be converted into vital forces, and into tissue. Exercise and respiration are the natural means to effect this. "Respiration," said Arbuthnot, "is the second digestion."

When the patient is able to carry out the instructions, and when there is a sufficiency of unimpared lung tissue, respiratory gymnastics, and voluntary forced respiration may suffice. Ordinarily, however, these measures will not be sufficient and must be replaced or supplemented by a method which affords mechanical assistance to respiration independent of voluntary exertion. This method offers itself in the inhalation of compressed air, a subject which will always be associated with the name of its great promotor, Waldenburg. The air is inspired under an excess pressure, gradually increased from 1-80–1-60 up to 1-40 or 1-30 of an atmosphere. Expiration is ordinarily made into the atmosphere; sometimes into rarefied air. The inhalations are administered once or twice daily. At each period, ten or fifteen, twenty-five or thirty, up to one hundred or more respiratory acts are completed in five to fifteen minutes, and the process is repeated after an interval of about ten minutes.

The value of this procedure as an aid to nutrition, formed the theme of a paper I read before the Pennsylvania State Medical Society last summer, and needs not now to be elaborated. Let me, however, briefly recapitulate the principal points. The inhalation of compressed air, dilating the air-cells as it does, by gentle and equable pressure, aids nutrition by securing the proper exposure of venous blood to the atmosphere, facilitating the disengagement of carbon dioxide and the taking up of oxygen to be carried by the hæmoglobin to the tissues, and assist in force-production and tissue-building. The mechanism by which this is accomplished is complex. The air passages are cleansed from decomposing products of secretion and desquamation, and the alveoli are reopened in unused, blocked, and partially consolidated areas of pulmonary tissue, thus securing efficient pulmonary ventilation. Increase of partial pressure favors dissociation of carbon dioxide and association of oxygen in the pulmonary capillaries. Direct pressure and pressure differentiation tend to promote the relief of congestion in the lungs, the absorption of inflammatory congeries of new cells, and the stimulation of both intra-pulmonary and peripheral circulation. Increase of blood pressure, further, stimulates the production of lymph. Thus is secured not alone the exposure by increased volume and rapidity of pulmonary circulation, of a greater number of corpuscular oxygen carriers to the increased volume and weight of inspired oxygen, under the conditions most favorable to oxidation of hæmoglobin, but also the penetration of the corpuscles with their vitalizing burden in the nutrient lymph-stream, further into the tissues. This latter effect may theoretically be hightened by a measure advocated by Prof. Bartholow in simple anæmia, with sluggish peripheral circulation; namely dilatation of the terminal vessels by means of trinitrin (nitroglycerin). I have as yet no avail-

able experience with nitroglycerine in phthisis.

One circumstance, which had long militated against the popularization among the profession of pneumatic treatment, was the cost and cumbersome clumsiness of the necessary apparatus. In 1883, with the assistance of Charles Richardson, of the house of Queen & Co., Philadelphia, I succeeded in largely obviating these objections by means of an apparatus, which can not only be employed in the physician's office, but may be entrusted to the management of the patient or his friends at home, and is comparatively inexpensive. It is fully as efficient as the apparatus of Waldenburg, upon which it is modelled, and, like its original, is superior to a certain widely advertised and extravagantly costly patented instrument, devised in 1885. It consists simply of a small gasometer and a foot-bellows. The inner cylinder is weighted at the bottom, in order to throw the centre of gravity as low as possible, and preserve its steadiness without pulley or flanges. Air is pumped in by means of the foot-bellows, the supply valve of the latter being connected with a rubber tube of large aperture, which is placed out of the window, to secure pure, fresh air. Without additional weighting the inner cylinder gives the pressure of 1-70 of an atmosphere. By placing additional weights on top, the pressure may be increased to any desired amount up to one-fortieth of an atmosphere. The supply of air is continuous, and the patient may inhale directly from the apparatus, or the stream of inspired air may be made to pass through a Wolff bottle containing terebene or other volatile medicament.

The mouth and nose are covered with a mask to exclude atmospheric air, and the ingress and egress of respired air are regulated by a stopcock. For detailed information as to the use of compressed and rarefied air, time requires me to refer to my previous communications, or to the text-books on inhalation.

To the administration of compressed air inhalations, twice a day, is to be added, when possible, due exercise in the open air ; and when this is not advisable or possible, passive exercise by massage, frictions, and similar measures. Three hours after meals, during the culmination of digestion and the activity of absorption is the preferable time for open-air exercise. In the presence of active febrile processes, both active and passive exercise are to be moderated or even interdicted. Compressed-air inhalations, however, need not be abandoned. Inhalations of nitrogen have been recommended to abate fever. I have not tried the measure.

Digestion, absorption, assimilation, metabolism being assisted, it remains to promote the excretion of waste, in order to rid the system of the now well-recognized danger of auto-intoxication by leucomaines, ptomaines, etc., and to make room for reconstructive materials. Stimulation of the emunctories by diuretics, cholagogues, cathartics, even diaphoretics are here indicated ; but drugs should be avoided as far as possible, and when absolutely indicated, only the mildest renedies are to be chosen, these being promptly discontinued when the desired effect has been produced.

Our general tonic medication, exercise, forced respiration, etc., will, of course, assist directly, and indirectly, as emunctorial stimulants. The daily sponge bath, which, to the well, is a matter of comfort and cleanliness, becomes to the consumptive a measure of therapeusis. The drinking of water, perferably hot, is again applicable as the best of diuretics and a potent diaphoretic. Lemon juice and sugar may be added to render it more palatable, the former indeed, increasing its value as a diuretic. Nitro-hydrocoloric acid is among the best hepatic stimulants in this connection. An enema is ordinarily the best method for emptying the bowels. To overcome intestinal torpor the same measures employed under other circumstances, nux vomica, belladonna, faradism, etc., may be resorted to. Among the preferable cholagogue cathartics, are podophyllin and rhubarb.

The indications thus far considered may be fulfilled in the generality of cases by the following routine:

1. An abundant and proper diet, as already discussed ; gavage, if necessary.

2. The drinking of hot water, or hot lemonade ; lavage, if necessary.

3. Moderate open-air exercise ; respiratory gymnastics ; daily inhalations of compressed air.

4. The administration of some such pill as this, three or four times a day : Iodoform, 1 to 2 grains, creasote one-half minim to one minim ; to which may sometimes be added : reduced iron, 1 grain, or arsenious acid, 1-60th to 1-20th grain, the pill being made up with glucose, crude petroleum, or extract of licorice, with the addition, if indicated, of some bitter extract, such as gentian, cinchona, or nux vomica, and dispensed in capsule. Among other useful prescriptions may be cited, when iron is indicated : Compound syrup of phosphate of iron (Parrish); tincture of chloride of iron, dilu e phosphoric acid, and Churchill's syrup of hypophosphities (J. Solis Cohen); the officinal syrup of hypophosphities and iron, etc. Iron seems to be better borne by the stomach, and to be more readily appropriated by the red blood-globules when inhalation of compressed air is practised. I have noticed this even in non-phthisical anæmia. Cardiac weakness, excessive febrile action, and other conditions may call for appropriate medication.

Although the ordinary administration of drugs is beyond the limits proposed to be discussed in this paper, it may be interpolated, while upon the subject of internal medication, that great improvement is, in many cases, apparently due to the use of iodoform, both singly and in combination, in doses ranging from one to five grains three times daily. Gains in weight are often very gratifying, when sufficient food is furnished. Thus I recall a patient under my care in the medical clinic of Jefferson College Hospital, who, although far gone in the disease, and doubtless, beyond the possibility

of permanent restoration, gained eleven pounds in one month while taking a pill of iodoform, two grains, three times a day, and drinking from one to two quarts of milk daily with the addition of beef peptonoids.

Crude petroleum, like creasote and tar products in general, seems to have a favorable influence upon cough and expectorations. The good effects of iron and arsenic in anæmia and malnutrition generally are well known. Their action in phthisis needs no other explanation. It is due primarily, I believe, to direct influence upon digestion; secondarily, to general stimulation of constructive metamorphosis.

Thus far we have considered, in the main, measures directed to the general system. To the inhalation of compressed air, a measure designed in part mechanically to counteract local pathological conditions, and to the administration of iodoform and creasote, drugs devoted in part to the restriction of morbid histological action, we may add some of the newer devices immediately directed against the local morbid processes, in part or in whole.

First in this division of our theme, is the subject of medicinal inhalations. This might well be made the subject of an elaborate paper. Time permits but a hasty indication of its value. The general profession has been unaccountably slow to realize the advantage of a method which permits of direct medication of the respiratory tract in greater or less extent. This hesitation may have been produced by the extravagant claims of some unbalanced observers. I will try to avoid that error, but I cannot help speaking with enthusiasm. There are certain volatile medicaments long known to exert favorable influence upon pulmonary diseases, although the method by which they operate is a matter of dispute. From a purely empirical standpoint, then, I will enumerate, in the order of merit, those that appear to me to be the most generally useful. These are, creasote, ethyl iodide, terebene, spirits turpentine, tincture benzoine, spirits thymol, and spirits choloroform. Eucalytol is often useful, but, in the main, has disappointed me. Whatever the reason may be that the atmosphere of pine woods benefits those suffering with chest troubles, is the reason that terebinthinate inhalations at home have sometimes an almost equally good effect; especially so, it seems if combined with oxygen. Ethyl iodide, besides some specific effect of its own, offers a ready means of local and general iodization without disturbing the stomach; to preserve it, it should be mixed with alcohol, and dispensed in a dark bottle.

In chronic processes, creasote, terebene, and ethyl iodide are employed for general good effect. To control subacute epiphenomene, terebene and ethyl iodide are most frequently resorted to. Benzoine is preferable for acute catarrhal processes. Thymol is sometimes substituted for creasote when the oder is a source of complaint. Choloroform finds indications as a sedative to troublesome cough and as a mitigant of the sharpness of some specimens of terebene. Burrough and Welcome's terebene is to be preferred for internal use, but the commercial terebene (Merck's) seems better for inhalation, and very often requires the admixture of chloroform or spirits of choloroform. These agents may be inhaled from a wide-mouthed vial, but preferably from the sponge attached to the little perforated zinc respirator, devised by Dr. Burney Yeo, of London, which may be worn almost continously, with very little inconvenience, thus keeping up a desirable effect. Many patients wear the respirator during sleep, and are perfectly comfortable. Fifteen or twenty drops of a mixture consisting, for example, of equal parts of creasote, terebene or ethyl iodide, and spirits of chloroform or alcohol, may be dropped on the sponge, and renewed two or three times a day. One of the volatile substances enumerated may be floated on the surface of water in a Wolff bottle, connected with the compressed-air apparatus, or with a reservoir of oxygen. Terebene is the one usually chosen for this purpose. Vaprous sprays of various antiseptic, stimulant, or sedative solutions may be administered by means of the Oliver or globe atomizer, or one of the many contrivances depending upon the same principle—a combination, that is, of the Bergsson and Sales-Giron methods of nebulization, giving a very fine mist which apparently penetrates the air-passages for some distance. Messrs. Godman and Shurtleff have, at the suggestion of Dr. J. Solis-Cohen and myself arranged a neat combination of the Oliver atomizer with the stopcock of a compressed-air apparatus. Should this device stand the test of experience, I will describe it in a future paper. Hydrogen dioxide suggests itself as a valuable drug for use in this manner.

Acting upon a recommendation of Prof. Bartholow's, I am making some observations on the inhalation of sulphurous acid gas, an old remedy, by a new method. It has been found that carbon dioxide and sulphur dioxide, both extremely rebellious gases when attempt is made to liquify them separately, may, by a comparatively slight pressure be together brought into a liquid form and confined in an ordinary mineral water siphon bottle. On releasing the pressure, they immediately return to the gaseous state, and the air of an apartment may thus be readily charged with any desired quantity. The diffusion and probably the mixture with carbonic acid robs the sulphurous acid, to some extent, of the suffocating properties it exhibits when inhaled undiluted. The dose is to be regulated in each case by the individual capacity to breathe the sulphurous atmosphere—which varies greatly—and the patient is to pass as much time as may be practicable in the medicated apartment.

Sufficient time has not elapsed since I have been able to obtain the liquid referred to, to venture a positive expression of opinion from my individual experience. I believe that it will prove to be a valuable addition to our resources. This leads,

naturally, to the subject of gaseous injections of carbonic acid and hydrogen sulphide. At the time that I had announced the sub-titles of this paper, the Bergeon method of treating phthisis was a novelty in this country; but as the members of this Society are now beyond doubt thoroughly familiar with it, instead of describing the process in full, I shall simply give a few practical points, the result of personal experience: First, as to the method of preparing and using the gases; and, secondly, as to what may and what may not be expected of it.

The intelligent physician will "prove all things and hold fast to that which is good," even though imperfect experience may decry as utterly useless that for which unbalanced enthusiasm had claimed too much. He will not hold scientific investigators responsible for the vagaries of irresponsible newspaper reporters, nor reject that which palliates, because it does not infallibly cure. In the first place, we must remember that the effect of the Bergeon injections is produced by the elimination of the hydrogen sulphide (or other active agent) through the air tract. Unless we obtain evidence of this elimination by recognition of the odor in the expired air, or the blackening of test paper of plumbic acetate (in case H_2S be employed) by the breath, we are not secuirng the proper effects, and cannot expect improvement. Failing to secure this evidence in many cases, with most of the natural waters used, I have been well satisfied by the use of the solution recommended by Yeo after Bardet, which is prepared by adding to eight ounces of water three drachms each of the following solutions:

No. 1.—Sodium sulphide (c. p.)	℥ ss.
Distilled water	f ℥ vj.—M.
No. 2.—Tartaric acid	℈ j ʒ ij
Salicylic acid	ʒ ss.
Distilled water	f ℥ vj.—M.

Secondly, to avoid colic and griping pains we must be sure no air remains in bag, bottles, tubes, or any part of the apparatus, and must warm the injected gases.

Thirdly, twenty minutes to half an hour must be consumed in the process. From four to six quarts of carbon dioxide should be used at each injection, after the first few to established tolerance. The patient should remain recumbent for half an hour after the cessation of the injection.

Fourthly, the best times for injections are just before breakfast, and just before going to bed—*i. e.*, three hours after supper.

Fithly, patience and perseverance are necessary, both on the part of patient and physician.

Sixthly, tartaric acid is more easily carried and more neatly handled than sulphuric acid, and will disengage carbonic acid from sodium bicarbonate as quickly. About two parts by measure of tartaric acid to three of sodium bicarbonate is a good working rule.

This method of treatment is not designed to destroy the bacillus tuberculosis, but to remedy those local conditions, mainly suppurative, which permit this microbe to find a suitable habitat in the lungs. A significant fact lately reported, and, if verified, of vast scientific importance in correcting current errors as to etiology, is that the sputum of patients thus treated, fails to produce tuberculosis in animals.

The effects of the treatment, as I have seen them in many, but not in all cases, are more or less rapid reduction of temperature, diminution of cough, improvement in the character of expectorated matters, promotion of sleep, increase of appetite, cessation of night-sweats. These palliative results, great in themselves, are still greater in the removal of obstacles to nutrition. The physical signs attributable to collateral catarrh and suppurative processes subside. I have seen no cure, but then there has not been time either to permit recovery or to test its reality. I have not noticed any marked recession in physical signs in the lung due to the tuberculous process itself; but in two cases, patients of Dr. J. Solis-Cohen's, I have seen cicatrization of laryngeal ulcerations apparently, tuberculous, with subsidence of pyriform tumefactions. This is a rare occurrence, even with assiduous local treatment, and in these instances local treatment was not instituted. In no case, however, have we abandoned superalimentation, or refrained from medication when it seemed to be indicated. I regard the Bergeon process as a good adjuvant to other treatment; but until I have larger and longer experience therewith, I should hesitate to place sole dependence upon it. To establish its proper value we must employ it in all cases, and find out in what group it seems to be most useful. I should say from my own experience, and from what I learn from my friends in Philadelphia, that the cases in which it appears to be most efficacious are neither those where the lung is hopelessly broken down, and it is powerless; nor those in which softening has not begun, and it is unnecessary; but those in which septicæmic processes, due to pulmonary suppuration, are a source of danger and a cause of depression; yet in which there is still a hope of prolonging life if the suppurative process can be controlled. When this has been accomplished, I should then feel disposed to resort to inhalations of compressed air. The latter are, indeed, the one great dependence in cases of early phthisis, and were I compelled to choose between compressed-air inhalations and all the drugs of the pharmacopœia I should unhesitatingly prefer the former. I know that I have seen consumption cured by its means. I have seen cases, in the practice of my brother, that have remained well for ten years, and know of some still living that have survived the predicted time of death even longer; and I am happy to say in conclusion that the patients of my own, whose cases I reported to this Society last year, are still alive, and to all appearances perfectly well. The treatment adopted in these cases and

carried out at home—obviating the expensive and often futile quest after a health-restoring climate. It was superalimentation, compressed air, ethyl iodide and terebene inhalations, iodoform, creasote, and iron internally; measures directed not against a microbe, which is the evidence of disease, but against the malnutrition, which is its cause.—*Phil. Med. News.*

ON DIABETES.*

By F. W. Pavy, M. D., F.R.S.,

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Diabetes has always been regarded as an incurable disease, and although it has elicited much study, there are still many points open for investigation. The nature of the affection may be stated in very precise terms. It is simply a faulty assimilation or a faulty disposal of certain elements of our food. If we look to the food of man, we find that the chief elements of it are nitrogenous matter, fatty matter, and carbohydrates, that is to say, the large group consisting of starch, cane sugar, grape sugar, dextrine, etc., behave in the system, the one exactly the same as the other, so that it would be better to employ this general term.

In diabetes there is no difference in the behavior of the carbohydrates; starch behaves the same as cane sugar, the same as dextrine. It is this group of principles in connection with which there is a faulty disposal or a faulty assimilative action. The disease consists essentially of that. A healthy person, for example, takes one or another of the carbohydrates, and it is lost sight of in the system; we know nothing more with regard to it, and we assume that the processes of life are such as to lead to the transformation of this carbohydrate in such a manner that it shall be susceptible of utilization in the system. That is the case with the carbohydrates. That is the condition of health; but what is the condition of diabetes? In diabetes, one of these carbohydrates may be taken, and in proportion as the carbohydrate is taken so is sugar eliminated in the urine. We may therefore say, and it is merely the expression of a fact, that in the diabetic there is a want of assimilative power, there is a want of the power to dispose of what carbohydrates may be taken into the system as food. Thus far, I think, we have to deal with facts.

In diabetes the sugar reaches the general circulation in a manner that it should not do. In a state of health, analysis shows that only a trace of sugar exists in the contents of the general circulation—in the small proportion of 0.6, 0.7, 0.8 per thousand, so that when a carbohydrate is taken as food, it is stopped before it reaches the general circulation. Not so with diabetes. Here sugar exists to a large extent in the general circulation. In proportion to the severity of the case will be the quantity of sugar contained in the general circulation. The carbohydrate which is taken as food does not stop before reaching the general circulation, but in proportion as it is taken, so does sugar appear in the urine. The sugar appears in the urine in proportion as it exists in the blood, and, therefore, the urine may be said to be the index of the diabetes.

The amount of sugar in the urine stands in direct relation to the amount of sugar in the blood. You cannot possibly keep sugar in the circulation; it will not remain there, but it will make its appearance in the renal secretion. Now I have at present only given expression to facts that may be observed.

But why does sugar thus get into the general circulation in diabetes? That is the important point. I think it is generally admitted that the liver constitutes the assimilative organ for the carbohydrates. The liver it is that stops the sugar, or the carbohydrate in its passage to the general circulation. The sugar is so changed by the liver that it is not permitted to arrive in the general circulation. Sugar in the organism is transformed into glycogen, and leads on to the production of fat. Its office may be demonstrated in the lower animals. If you want to fatten an animal quickly, feed it on an abundance of sugar. This, I think, demonstrates the use of sugar in the production of fat. The liver, then, I think, is a steatogenic organ, transforming the sugar into glycogen, and afterward into fat.

It seems to me in health that this is what occurs; that the carbohydrate absorbed from the intestine is stopped by the liver, converted into glycogen and then into fat, instead of being passed through the organ and appearing in the general circulation. If, however, it passes through the organ, we have diabetes. But what is at the bottom of this faulty process? It seems to be a wrong condition, apparently arising from a faulty condition of the venous blood. The liver is differently placed from other organs, in its large supply of venous blood and its proportionately small supply of arterial blood; and the blood which reaches it should be in a good venous condition. If it be not in a good venous condition, we have the chemistry of the liver immediately altered, and sugar appears in the urine.

This alteration of the portal blood may be produced in a number of ways, it may be produced by disease or by experiment, in the first place, by the injection of defibrinized arterial blood into the portal circulation. In a very short time after arterial blood from which the fibrin has been removed has been introduced into a vein of the portal system, we find sugar in the urine. The blood may be rendered saccharine by over-oxidizing the systemic blood. Experiments—not only my own, but those of others—have demonstrated this, that the carrying on of respiration in the lower animals more actively than normal, the

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heart's action continuing, will lead to the production of saccharine urine. If oxygen exist in the portal blood to an extent to which it ought not to exist, you will have saccharine urine.

How does this apply to diabetes? If you get a vaso-motor paralysis of the arteries of the body you will have that condition. If, as may be witnessed, we have a vaso-motor paralysis of the vessels of one side of the head and neck, we find that the veins of the region become distended, not with venous blood, but with semi arterial blood. As a result of such the blood will arrive at the liver without being fully de-arterialized, in other words, in an imperfectly venous condition. If the arteries of the abdominal organs of the chylopoietic viscera become enlarged so that the blood in them does not become perfectly de-arterialized, you will find the chemical action of the liver becoming changed so as to permit the carbohydrates to pass through it and get into the system, and so charge the general circulation with sugar. The worst forms of diabetes I have met with are those in which there is a dilated condition of the vessels of the mouth. For the production of diabetes, it is only necessary, I consider, for us to have a dilated condition of the vessels of the chylopoietic viscera. But the worst cases of the disease, as I have just said, are those in which this dilated condition of the vessels, due to vaso motor paralysis, has extended from the chylopoietic viscera and visibly involved the mouth. In these cases we have the presence of an exceedingly red tongue.

Again, puncture of the floor of the fourth ventricle, that celebrated experiment of Bernard, leads to the presence of sugar in the urine. Now what did Bernard himself observe in connection with the animals thus experimented upon? A dilated condition of the vessels of the chylopoietic viscera.

One of the first points to attend to in a case of diabetes is to test for sugar. Sometimes discordant opinions are expressed with reference to cases; one physician, for instance, will say that the patient is suffering from diabetes, while another physician will say that he is not suffering from the disease. Sometimes that depends upon the test made, at other times it depends upon its being a mild case of the disease, which presents varying conditions under the influence of food. If the patient has partaken freely of carbohydrates, sugar exists in his urine, and, if examined then, it is to be detected. Then he goes to another physician after he has not partaken so largely of the carbohydrates, or perhaps after a fast, and there is no sugar present.

We want a test that will give us a decided and reliable indication. I believe that the most reliable test for sugar in the urine is the copper test. What is ordinarily used is known as Fehling's solution. But there is this objection to Fehling's solution, namely, that it is apt to get bad after being kept, because, if kept for a long time, it will throw down a precipitate; and, again, the stopper of the bottle, unless used often, is apt to become fixed, and when you want to use it you cannot get it out. Some time ago I came to the conclusion that it would be well if we could get the Fehling's reagents prepared ready for use in a solid form. I found, however, that when thus prepared the agents rapidly deliquesced and decomposed. Here, however, is a pellet which I have had prepared in which the difficulty has been overcome. It is composed of the copper sulphate, Rochelle salt, and caustic potash. It must be made in a certain way with the materials in an anhydrous state. The sulphate of copper is to be placed in the die first, then some Rochelle salt, next the potash, and finally some more Rochelle salt to complete the mass. If now we dissolve one of these pellets in a little water, we have first produded the greenish color of the copper, but, later, as the potash is reached, it becomes blue, as is characteristic of Fehling's solution. If these pellets are kept in well-stoppered bottles they will keep for any length of time. And there is this advantage about the pellet, that if it does become bad from the absorption of moisture, it becomes so bad that it cannot be used, and therefore there is no danger of its leading to error. It will, if exposed to the atmosphere, become altered, but it then turns black, so that the change is readily recognized, and it cannot be used. If I now add to this solution a little liquid containing sugar, and boil the mixture, the oxide of copper becomes reduced to the state of suboxide, just as in the ordinary testing with Fehling's solution. These pellets are now considerably used in England.

I do not think that a case of diabetes can be satisfactorily managed unless a quantitative analysis of the urine is made, and the amount of sugar contained in it is determined. I do not consider that a person can get along satisfactorily without knowing the amount of sugar that is being eliminated by the kidneys any more than he can get along in a case of thoracic disease without knowing, by the aid of the stethoscope, exactly the amount of disease existing there. In my own practice, I desire that two specimens be brought to me, one passed in the evening and the other upon rising in the morning. By an examination of this kind you can discover errors of diet in your patient that would otherwise escape you. You do not need to ask the patient at all what he has been eating, you can tell him. Errors of diet can be detected at once. You can not only detect that the patient is not following your instructions, but you can tell at what meal the error has been committed. Under ordinary circumstances, if the person is passing sugar (of course, if he is not passing sugar you cannot tell anything about it) you may find in the night urine a considerable quantity of sugar, and in the morning urine none at all. The sugar in the night urine has been derived from the carbohydrates

taken during the day. The morning urine has been derived from the blood during the night, and therefore in the interval of digestion, and thus may contain no sugar.

The urine of food may be quite different from the urine of fasting.

I remember once a patient whom I had treated for some time, coming to me with a bottle of night urine containing an unexpectedly large amount of sugar. I could not account for this sudden increase of the amount of sugar in it. I got him to enumerate the articles of food he had taken the evening before. Among the articles enumerated he named blanc mange, but he had frequently taken that before without injury. I told him to inquire, and that in all probability he would find that it had not been made in the usual manner; and upon doing so, he learned that it had been made with corn flour (corn-starch) instead of in the manner that had formerly been done, viz., with isinglass and cream. In another instance, I was able to tell a patient that she had taken her breakfast in bed. I found in this case that the night urine contained no sugar, while the morning urine was loaded with it. She had arisen late, and the only way of accounting for these conditions observed was on the supposition that she had eaten before arising, and this I found was actually the case.

Now we want some means of easily and precisely determining the amount of sugar contained in the urine. This can be done as follows: As we know and have just seen, in testing in the ordinary manner with the copper solution, the suboxide of copper is precipitated. In the method that I shall show you, instead of this, the solution remains clear, and becomes colorless, and the sugar is estimated from the amount of liquid being examined, that is required to decolorize a given quantity of the solution. The solution is made with the sulphate of copper, Rochelle salt, caustic potash, and water of ammonia. Into a given quantity of this the liquid containing sugar is dropped. It is best in testing urine to dilute it with twenty or thirty parts of water in order to make the test more delicate. The diluted urine is placed in a graduated curette, from which it is dropped into the ammoniated copper solution after the latter has been heated to the boiling point, letting it flow drop by drop until the color has just entirely disappeared. The dropping of the liquid into the test solution is guided by means of a screw adjustment affixed to the tube, which can be set so as to permit the escape of forty, fifty, eighty, or one hundred drops per minute. The beauty of the test is that the exact terminal point of the reduction can with the greatest surety be determined, for there is no precipitate to obscure the view of the reduction. You observe now in the apparatus before me that as the saccharine liquid drops into the boiling test solution the color is gradually disappearing and the liquid remains perfectly clear.

Sometimes, albumen is found in addition to sugar in the urine of the diabetic. Not infrequently you will find that when the patient first comes under your observation he has a considerable quantity of albumen in his urine, and that after he has been under treatment for the disease for a while the albumen disappears. This will permit me to bring to your notice a convenient test for albumen. This consists of citric acid and the ferrocyanide of sodium, the ferrocyanide of sodium being used because it makes a looser pellet than the ferrocyanide of potassium, and therefore more quickly dissolves. There is this advantage about it, that as a clinical test you require nothing more. If albumen is present, you are sure to get a precipitate; and if you get a precipitate, you are sure that albumen is present. It is also a test of an exceedingly delicate nature. It is a test that requires nothing to check and nothing to corroborate. You can carry it with you in your pocket like a pencil-case or pocket-knife. No matter whether I need it or not, I always have my albumen test in my pocket with me. I have here, as you see, a very compact tube containing all that is required. I will show you the method of using the test with this liquid, which contains albumen. The citric acid pellet must be used first. It very speedily dissolves. Sometimes citric acid will bring down a precipitate of uric acid, or it may be of oleo-resinous matter; but, as it is not the citric acid which is the test, we do not rely upon that. If the citric acid brings down a precipitate of uric acid, a dilution of the urine will redissolve it. On the addition now of the other pellet, consisting of ferrocyanide of sodium, you have a definite and reliable precipitate of albumen produced. This test has now been out several years, and, so far as is known up to the present time, nothing under the circumstances will occasion a precipitate with the pellet of ferrocyanide of sodium besides albumen, so that it is a test upon which you may rely alone.

I will speak now of considerations bearing more particularly upon the disease itself. There are different grades of intensity probably as marked in diabetes as in any disease we have to deal with. Let us start with a healthy person. Even a healthy person has not an unlimited power of assimilating the carbohydrates, but the first step toward disease is where the assimilative power is below the normal. This kind of person will not, under ordinary circumstances, pass sugar in his urine. If, however, he partake freely of preserves, or other articles of food containing large quantities of sugar, he will pass saccharine urine. Then you come to persons who, when partaking moderately of food containing carbohydrates, will pass sugar. They may take carbohydrates to a certain extent without showing evidence of abnormality, but as soon as the limit is passed sugar will appear.

Age influences largely this complaint. Severe cases are in young subjects, mild cases are in old

subjects, and the more advanced the age the better the prognosis. I know of no disease in young subjects that is more grave. The ordinary length of life in young subjects afflicted with diabetes may be said to be about two years. In middle-aged or elderly persons the prospects, happily, are of a different nature. If they follow proper management they can keep the disease under. The unsatisfactory cases are in the young, the satisfactory cases in the elderly.

The age at which the disease is most common ranges between forty and sixty years. Preparatory to the meeting of the British Medical Association, a few years ago, I went through my case book and tabulated 1360 cases, and I found that the cases occurring between forty and sixty years of age made up fifty-six per cent. of the whole.

Sometimes the disease commences in mild form, and may run along for several years before it is recognized. You may say, What authority have you for making such an assetrion? How do you know that the disease has run for some time without having been recognized? There is this way of knowing it: saccharine urine leaves white spots on articles of clothing, and in micturition the trousers are apt to get splashed. The "boots" at hotels are able to recognize diabetic guests. They find the spots on the legs of their trousers very difficult to brush out. I have had patients come to me who were able, when asked, to hunt up old trousers on which these spots were found, and could remember the annoyance occasioned by them for a long time before. Such are the grounds for being able to say that the disease may have existed for some time without having been recognized.

It runs in families to a considerable degree. I do not say that it is hereditary in the same way as gout and phthisis are, but it runs in some families in a striking manner. I was asked to see a patient suffering from diabetes, who belonged to a family of five, the eldest of whom was not more than eighteen or nineteen. The mother had died of diabetes and the grandmother had died also of the disease. One of the children was brought to me, as I have said, and sugar existed in the urine. I desired to have a specimen from each of the remaining children. In four of the five the urine was saccharine.

There is one point with reference to the disease to which I would like to call your especial attention, and ask you to give it the benefit of your own observation. It is only somewhat recently that my own attention has been fixed upon the matter, and the number of cases I find to be affected in the manner I am going to mention is striking. The remark does not apply to young subjects, but to persons beyond the middle period of life. I used to come across persons who complained of pain in the legs, put down as cases of gout or rheumatism; and I took it as simply coincidental to the diabetes, without anything important in it. But I so frequently met with it that my attention became aroused, and now I find many subjects of diabetes beyond the middle period of life thus affected. There is also more or less ataxia. It is not exactly the pure form of ataxia that it is seen in locomotor ataxia, because I have noticed that these persons can stand, maintaining their balance fairly well with their eyes shut. Yet they walk with some difficulty. They cannot properly maintain their balance. They feel often compelled in walking to pull themselves together and make an effort to walk steadier, lest persons behind them may think they have been taking too much. This is what has occurred to me over and over again to hear.

Then, again, with this, there are usually associated some anæsthesia, and hyperæsthesia, and various forms of paræsthesia. Persons feel as though they were walking on pebbles. The flesh is tender, so that when the leg is grasped it gives pain. This comes oftener in the legs than in the upper extremity; sometimes. however, it affects the upper also. Then there is an aching of the bones. The patient complains of it especially at night, in bed. The condition appears to be due to peripheral neuritis.

Treatment.—In young subjects, all we can do is to endeavor to stay the disease for a time. You cannot possibly cure it. At an early stage of the disease in the young subject, you diet the patient—the sugar is removed, and the patient thinks he is cured. Sometimes you are called upon to treat a patient who has been brought to an extreme state of emaciation and weakness, by a sudden and severe invasion of the disease. Placed under proper treatment, the change appears like a resuscitation. He goes on getting better, his hopes are raised, and he thinks he is well. Unfortunately this is not the case. It is a progressive disease. It is a disease which seems to progress in the same way as progressive muscular atrophy or locomotor ataxia, but its advance is uneven. As it advances, the diet and other methods of treatment which succeeded in removing the sugar at first no longer do so; the patient now loses ground and becomes weaker and weaker. You are able at first to keep down the symptoms and the excessive flow of urine; but soon you lose your power to keep them down, and finally something occurs to throw your patient off his balance, and to lead up to diabetic coma, which is the ordinary mode of death in these cases.

It would be a hard and oppressive life to devote one's self only to the treatment of diabetes occurring in subjects. But the successes obtained in treating the disease in patients of a more advanced age compensate in a measure at least for the failure in young persons.

We first avoid feeding the disease, and whilst doing this endeavor to convert the wrong action of assimilation into a right one. I lay the greatest stress on diet. I do not think that we can get along in the management of these cases without strict attention to diet. There must, then, be the

proper articles of food provided. It is easy enough for the patient to avoid taking some articles of food, as sweets, pastry, puddings, potatoes, etc., but it not so easy in the case of bread. What he may take may be summed up as consisting of any kind of meat, fish, poultry and game, with eggs, butter, cheese, the various forms of green vegetable food, and a prepared substitute for bread. Milk should only be taken to a limited extent. Some authorities have recommended the free use of milk. But milk contains sugar, and milk-sugar behaves in the system exactly as any other form of sugar. I have found that where milk has been taken in large quantity, the sugar has been kept up in the urine; whilst when the quantity of milk was reduced, the state of the urine improved. Certainly it is a hardship for a patient to abstain from bread, and you want to make it as easy as possible for him, by substituting something else of a palatable nature for the article prepared from wheaten flour. I do not think bran, which is often used, is a good substitute, because it contains from 40 to 50 per cent. of carbohydrates and very little else that can be digested and applied. Gluten is better, but it contains a considerable amount of starch. If the gluten is good, it contains only from 30 to 33 per cent; but I have found some specimens containing 70 to 80 per cent. Perhaps there is no article of food better suited to the diabetic than the almond. There is nothing which seems to supply him better with what is wanted. The almond, rich as it is in nitrogenous material, rich as it is in oily material, is just the article of food to meet his requirements, and palatable products, as a substitute for bread, may be prepared from it.

Medicinal Treatment.—As far as my experience goes, nothing contributes so much to arrest the disease as opium, morphia, and codeia. It is difficult, of course, to say, when you are treating a case with one of these remedies in conjunction with diet, whether the good result you get is not solely the dieting. But my own experience is to the effect that my practice, ever since I have been giving these, has been much more satisfactory than it was before I gave them. Clearly these agents appear to exert some power in controlling the disease. It is my custom when I get a patient of forty-five to fifty years of age to put him at once on small doses of opium, morphia, or codeia, and gradually increase. The sugar in the urine diminishes and usually disappears. After a while I permit the patient to take a little bread—say, two ounces a day. If he takes this without a return of sugar I let him gradually increase the quantity until he takes four or six ounces per day. Then I say to him you had better let well alone and stop at this, knowing how readily harm may be done by going beyond what can be taken without occasioning the passage of sugar. As long as sugar does not exist in the urine there is nothing to interfere with a healthy state being maintained. The patient is, to all intents and purposes, in a natural condition as regards his general state. It is only with the voidance of sugar that we get the symptoms of the disease and untoward results.—*Med. News.*

ANTIPYRIN IN RHEUMATISM: ITS VALUE AND MODE OF ACTION.

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During the last few months numerous writers in Germany and France have described the good effects of antipyrin in acute rheumatism. It has been said of it that it relieves the pain, and allays the fever as quickly as does the salicylate of soda, and that under its influence the cutaneous redness over the affected joints, and their swelling, gradually but soon disappears.

All of these statements I can confirm by my experience during the last four months in some twenty cases.

I have used antipyrin in acute cases, also in those that were subacute and in the acute exacerbations of those that were chronic. I noticed early that the greatest and most rapid improvement was obtained in cases in which there was a rise of temperature above the normal.

The first case in which I used antipyrin was one of chronic rheumatism in which there was, at the time, an acute exacerbation. The patient's stomach was so irritable that very little was retained by it. Enough of salicylic acid or of the salicylates could not be given to produce an impression on the disease. I therefore tried as an experiment a single dose of antipyrin, of twenty grains, at bed time. Soon after taking the medicine the pains, which were uniformly much more severe at night than during the day, were eased. The patient breaking into a profuse perspiration, fell asleep and passed the first restful night for some weeks. After a few days under this treatment her fever disappeared, and she was almost free from pain. When the fever was wholly wanting it was noticed that the antipyrin ceased to ease the pain that remained, and did not relieve the chronic stiffness and swelling of the joints. As often, however, as the temperature rose the antipyrin acted well. I have met with similar results in the treatment of three other cases of chronic rheumatism. No relief to the pain, swelling and other symptoms of inflammation was obtained in a case of gonorrhœal rheumatism, in which one ankle, one knee and the joints of the fingers were much swollen and exceedingly painful. There was in this case at the time no fever.

As an illustration of the action of antipyrin in acute cases, I will cite the history of a young man recently dismissed from Mercy Hospital, apparently cured. He had been sick with a sharply

acute and quite severe attack of rheumatism for ten days, when he entered the hospital. During that time most of the large joints had been in turn affected. When first seen by me his temperature 103° ; his pulse quick, bounding, full, but compressible; his skin moist, with moderate perspiration ; his countenance indicated pain and distress. At the time the pain was almost wholly limited to the left knee and right shoulder and elbow. All these joints were considerably swollen, and the skin over the knee was very slightly reddened. There were no evidences of endo- or pericarditis. Appetite was completely wanting but thirst was much increased. The bowels were constipated. The urine was somewhat scant and highly colored. Sleep of more than momentary duration had been impossible for many days. In a word, the patient at the moment presented the symptoms characteristic of a typical case of acute rheumatism. As it was one of the earliest cases of acute rheumatism that I treated wholly with antipyrin, I ordered at first the administration of a powder containing twenty grains of the drug only night and morning. The following afternoon he reported that soon after taking the medicine he slept, and for three or four hours was free from pain, but as the influence of the drug wore off the pain returned. His temperature had then lowered, but was still considerably above normal. I now ordered the antipyrin powders given three times daily instead of twice. Two days later the patient looked much better, and described himself as almost free from pain ; the cutaneous redness over the knee was gone, and all the joints were less swollen, but still stiff and somewhat painful on attempted motion. The temperature for the most part during the preceding twenty-four hours was normal ; twice it rose slightly. The frequency of the administration of the antipyrin was left to the judgment of the house physician ; the directions being to administer the drug whenever the temperature rose or an access of pain occurred. Following this plan, he received during the next two days two powders daily. He was entirely comfortable so long as quick and violent movements were not attempted. For eighteen hours there had been no abnormal temperature. The swelling of the joints was much less, and freedom of motion much greater. The case progressed steadily in a favorable manner, and all stiffness and pain disappeared during the next week. The antipyrin was continued for several days after all fever was gone. No other medicine was administered after its discontinuance, the patient simply being guarded against adverse atmospheric influences.

In the other acute cases in which I have tried antipyrin, I have been most pleased with the readiness with which it relieved pain and lessened fever. In some instances the improvement was more marked and more rapid than in the case I have just sketched ; in others it was somewhat slower, but always decided. I feel confident that, so far as a limited number of cases will permit one to determine, antipyrin can be said to be as efficacious as the salicylates. Being at first impressed with the thought that the relief obtained in rheumatism was due to the antipyretic effects of the drug, I substituted for it salicylic acid as soon as the temperature became normal; as, however, experience showed that the efficacy of antipyrin did not depend upon this property, I continued its use, as improvement took place, in lessened doses and less frequently, until a cure was established.

In the hospital cases most recently treated the drug has been used in fifteen grain doses, administered at the height of the disease every four hours, diminishing the frequency of its repetition as improvement occurred. It has seemed to me that I obtained more satisfactory results in my private patients to whom I gave it in larger, twenty grain, doses, four times daily, when the disease was at its height, and to whom, during the period of improvement, it was given in smaller doses, but not at first less frequently. From sixty to ninety grains (four to six grams) daily are recommended usually by those who have employed antipyrin in rheumatism.

The advantage of antipyrin over the salicylates consists chiefly in its less nauseating properties, its less liability to provoke vomiting, headache, and noises in the ears. Not unfrequently a patient is found who can not take the salicylates in efficient doses. While trying antipyrin, both in rheumatism and in other febrile diseases, I have found only one or two persons who rejected it ; and a few others whose stomachs were irritable, who complained, of slight nausea immediately after taking it. These effects are, however, much less frequently produced by it than by the salicylates. It can also be given efficiently, when necessary, by the rectum or subcutaneously.

The only ill effect that is likely to result from the use of antipyrin is the so called "antipyrin rash." This is seen only in a very small proportion of the cases treated with it. Two or three cases of fatal collapse have been reported occurring in typhoid patients, after taking antipyrin. At the most, however, this is an exceedingly rare accident, and it is questionable even if, in the cases referred to, the accident was due to the antipyrin. Ringing in the ears has been reported as occurring, but so seldom that it need not be looked for when the usual doses are used.

Others have found, very rarely, a case of acute rheumatism in which no relief could be obtained from the antipyrin treatment. The same can be said, however, of the usual salicylate treatment.

The use of the drug does not appear to influence the frequency of the occurrence of heart complications, and their existence is not a contra indication to its employment.

It is impossible, from what we yet know of the nature of rheumatism and of the physiological action of antipyrin to explain thoroughly its therapeutic action. The perspiration which very uniformly

follow its administration, and in rheumatism seems to accompany the diminution of pain, is probably due to relaxation of the cutaneous vessels. such as has been observed by Beyer (1) and others, and which naturally would feed and stimulate the cutaneous glands. It has been shown that the peripheral vessels dilate under the influence of antipyrin, the arteries dilating when large doses are administered. Whether this change of calibre is due to vaso motor influence or not is undecided, some claiming that the change is brought about by the direct action of the drug upon the vessels, since similar changes take place in isolated organs, (2) others claiming the reverse to be true. (3)

Antipyrin, when mixed with blood, does not cause a change of color or destruction of the corpuscles, as does kairin, thallin, resorcin, (4) and probably antifebrin.

Possibly its antipyretic properties are to be explained by the vascular changes which it produces, since they would contribute to increase the radiation of bodily heat. This is the explanation offered by Bettelheim, (5) Auseroff and Beyer. Arduin thinks the diminution in temperature is due to an influence exerted upon the thermogenic nerve-centres. During the last month P. J. Martin (7) has published the results of experiments whichshow that, almost uniformly, heat production isdiminished by antipyrin, and heat dissipation is very much increased. It thus would seem to be an ideal antipyretic. In the small proportion of cases in which heat production was not diminished heat dissipation was so far in excess that the bodily temperature was lowered. Several observers have noted that under the influence of antipyrin the surface temperature rises while the internal temperature of the body fails. (8)

Its power of allaying pain in rheumatism is probably not dependent upon these vascular changes or the pyrexia produced by it, but upon a direct action on the nervous structure of the body. Antipyrin, though apparently most efficacious in rheumatic fever and least in muscular rheumatism; still, even in the latter, often acts beneficially. In many painful disorders purely neuralgic in character it gives the most prompt relief; for example, to the sharp neuralgic pains of locomotor ataxia. Ungar, (9) T. B. S. Robertson, (10) and others, say it is efficacious in migraine. Germain Sée (11) has witnessed its power of relieving pain in other forms of neuralgic, and in gout, lumbago and sciatica.

The fact that there was in these diseases no common pathological effect except that of pain led the last writer to study particularly its action upon the nervous system. The results of his experiments he reported to the French Academy of Sciences on the 18th of April of last year. When injected subcutaneously in dogs three kinds of phenomena were observed: In the first place, a notable diminution of sensibility was observed, a true analgesia of the limb injected; sometimes, also, of the opposite one. In the second place, electric excitation of the sciatic nerve produced in the muscles of the opposite side only very feeble contractions, which points to diminished sensibility and reflex power in the spinal cord. In the third place, when antipyrin was introduced into the circulation of an animal except into one limb, the vessels of which were ligated, it was found that throughout the body the muscles contracted slowly and with difficulty, while those of the ligated limb contracted with their wonted vigor. It is evident, therefore, that antipyrin also affects the muscles; or more properly, perhaps, the nerve-endings in the muscles. Analgesic effects have been frequently noted by others. Large doses administered to animals cause convulsions, both clonic and tonic. Lessening of the reflexes, also, has been observed by others, as, for instance, by Arduin. (12) This last author, as well as Coppola, (13) thinks that the brain is influenced by the drug, since, when convulsions are produced by it, their severity is much diminished if the brain is separated from the cord.

Antipyrin does not affect the respiratory movements, although the frequency of respiration in fever diminishes as the temperature falls under its influence. As ordinarily administered, the rhythm and strength of the heart's action are not influenced. Beyer has shown by physiological experiments that when it exists in small amounts in the circulatory fluids, it causes an increase of work performed by the heart, while in large doses the contrary effect is produced. Some have also noted increased force in the heart's action, while others have observed a diminution in it. This discrepancy is probably due to the size of the dose administered.

The drug is eliminated by the urine, and can be found in it two hours after administration, and usually for thirty-six to forty eight hours afterwards. (14)

The following conclusions are, I think, justified by our present knowledge of antipyrin in the

1 "The Influence of Kairin, Thallin, Hydrochinon, Resorcin and Antipyrin on the Blood and Blood vessels." By H. G. Beyer, Am. Journ. Men. Sci., April, 1886.

2 Quireilo and Coppola. See article by Beyer, Am. jour. Med. Sci.

3 Auseroff, Therapeutic Gazette May, 15, 1886.

4 "De l'antipyrin contre la douleur." Par Germain Sée, Le Bulletin Médical, April 20, 1887.

5 Bettelheim, Med. Jahr. K. K. Ges. d. Aerzt., ii, iii, 1886.

7 "Modern Antipyretics." By P. J. Martin, Therapeutic Gazette, May 16, 1887.

8 See Beyer, Am. Journ. Med. Sci.

9 Ungar. Centralblatt f. d. Gesammte Therapie, January, 1887.

10 "Antipyrin in Migraine, Pyrexia, etc." T. S. Robertson, N. Y. Med. Record, May 7, 1887.

11 Sée above, Le Bulletin Medical.

12 Arduin, Therap. Gazette, October 15, 1885.

13 Coppola, Therapeutic Gazette, October 15, 1885.

14 Marigliano Roberts. Jahresbericth p 313; Therapeutic Gazette, October 15, 1885.

treatment of rheumatism: 1. It is as efficacious as the salicylate of soda, producing similar therapeutic results, and is less nauseous than the latter, and does not produce headache or ringing of the ears. 2 Usually it. acts most efficiently in the most frankly acute cases. 3. Besides reducing, by its antipyretic properties, the fever, and also the pain, it reduces the pain by acting directly upon the nervous system.—*Med. Progress.*

65 Randolph St. Chicago.

LOCAL TREATMENT OF DIPHTHERIA.

REMARKS SUGGESTED BY THE DISCUSSION IN THE SECTION ON PRACTICE OF THE ACADEMY OF MEDICINE, MARCH 15TH,

BY C. E. BILLINGTON, M.D., New York.

The conclusion of the important and valuable discussion which followed the reading of my paper on "Local Treatment in Diphtheria," before the Section on Practice of the Academy, on March 15th, was reached at so late an hour that I abstained from inflicting further remarks on an audience which had been both patient and kind, On reading over the report of that discussion, however, it seems to me to present an occasion for bringing out distinctly certain difference in the practical details of treatment which are worthy of the careful consideration of the profession, and this may now be done with more brevity and clearness than it could have been by me in extemporaneous speech.

First, as to the remarks of Dr. Jacobi. The fact that we agree so fully in general principles makes our differences in the mode of there application the more liable to be overlooked; although we have been explicit in the statement of our methods.

As to the internal administration of the tincture of iron, we agree that this drug is "among the most reliable antiseptic and astringent agents." Dr. Jacobi says: "A child a year old must take at least four grammes daily; a child of three or four years, from eight to fifteen grammes. The chloride is to be mixed with water and glycerine in various proportions, so that a dose is taken every hour, every half-hour, every ten minutes. *Thus other local applications to the throat become most superfluous.*" (The italics are mine.) "Potassium or sodium chlorate, from one to four grammes daily, may be added with advantage."

A comparison of these remarks and the formulæ given by Dr. Jacobi, in his published works, with mine on this point will show that there are differences of detail to which my experiences has, rightly or wrongly, taught me to attach no little importance. But the most notable difference is in the sentence which I have italicized. I have from the first of my publications insisted on the importance of also frequently spraying the throat with the mixture of carbolic acid and lime water in all cases of any gravity in which it can possibly be done, and have considered this so valuable as to materially modify the prognosis, it being, unfortunately, impracticable in very young children, in whose cases I have recommended the occasional syringing of the throat, when indicated, for cleansing purposes.

Dr. Jacobi says: "The usefulness of lime water has been greatly over-estimated." Believing, as I do, that lime-water is one of the most valuable medicinal agents in our possession for combating diphtheria, I cannot, of course, regard this difference as otherwise than important.

Again, while there is complete concurrence between us as to the importance of nasal syringing, there is an equally marked difference between our methods in this procedure. Dr. Jacobi says, "The tendency to sepsis forbids a long intermission of them." "I again insist on their frequent repetition." (In his book, page 218, Dr. Jacobi says, "They must be made at least every hour.") "The whole procedure need not take more than half a minute for the two nostrils; the children may be raised in bed, a towel under their chins. One person holds the hands, the other sits behind and injects gently, in order not to injure the ears."

The salient points of the procedure as recommended by me may be recapitulated as follows: The patient, if too young to submit voluntarily to the operation, should be firmly held by a method described. The syringing should, if possible, always be performed by the physician himself. It should be continued on each occasion until, if it be possible, the passages are thoroughly cleansed. This should not usually be repeated oftener than two or three times in the twenty-four hours, for reasons stated. The first syringeful or two will often not go through at all. Then will come masses and strings of thick muco-pus, then, not infrequently, larger or smaller pieces of membrane. The syringing should be persevered with until the injected fluid comes through (by the throat and other nostril) clear and clean. The patient should have time to get his breath between the successive syringefuls. I commonly use half a pint, sometimes more, of the tepid salt-water, and the time required for a thorough cleansing is always several minutes.

By this method the physician, who should certainly in every grave case of diphtheria visit his patient, if possible, two or three times a day, and who is or should be an expert in such procedures, and better able than anyone else to judge just how much or how little is requisite, performs it once for all—the patient during the intervals having a complete respite from the one measure in the whole treatment which is really unpleasant and fatiguing, and the nurse having quite enough left to her in the half hourly giving of medicine and spraying, and the frequent giving of nourishment. By the other method a less thorough and complete cleansing (in "half a minute") is to be accomplished "every hour at least," and that, too, often by nurses who lack dexterity and judgment,

and in many cases being possible only by force and with a renewed struggle. What more striking illustration of the danger of intrusting such delicate operations to average parents and nurses could possibly be imagined than the instances so graphically related by Dr. Jacobi of the performances of some "trained nurses?"

It must be admitted that, theoretically, the frequency required in the method described by Dr. Jacobi is apparently in more logical agreement with the principles of local treatment, which require frequent medication and spraying of the throat, but it should be remembered that this medication and spraying do not or should not, cause local irritation or undue fatigue, either of which would be a contra-indication to them. Moreover it may be added that two or three times a day is the limit of frequency, beyond which the washing out of an empyemic cavity or a septic uterus is not usually found useful, and while the analogy between the two is not perfect it may yet be sufficient to be suggestive. But the real question is, which of the two methods is the more efficient in accomplishing the object for which it is employed?—and this can, of course, be answered only by experience. My own experience I have stated, but my present object is far from dogmatic assertion, and still further from controversy, but is to place both methods clearly and fairly before the profession, so that each may be tested on its merits, and neither suffer discredit from any faults or failures of the other. Dr. Jacobi, who agrees with me as to the importance of details in the treatment of diphtheria, will, I am certain, concur with me in this wish.

The device mentioned by Dr. Jacobi, of protecting the tip of the syringe with a rubber mounting, is an excellent one, and so is that of drawing a short bit of small soft rubber tubing over the tip of a syringe, which was first mentioned by Dr. J. H. Douglas in the discussion of my paper in 1880, and again referred to by Dr. Delavan in this discussion; but any tip whatever may cause irritation and epistaxis in awkward hands, and even in expert ones, if the sudden movements of a young patient's head are not properly restrained.

The importance of the method which I have described, of holding a young child's head for nasal syringing, may be better enforced by a single illustrative case than by a great deal of argument. I was recently called in daily consultation in a case of nasal diphtheria, by a physician whose combat and muscular frame leaves no room to doubt that he is one of the strongest men in the profession in this city. The patient was a babe four months old. On the second day it was decided to syringe the nose, the syringing to be done by me. The babe was accordingly seated across its nurse's lap, its hands secured by her, and the basin in place. To show the doctor my way of holding a child's head, I stood behind it, and, leaning forward, placed my breast against it, holding it with a hand on both side, saying, You "see in that way the head is held as firmly as in a vise." The doctor then took his place behind the patient, and, standing erect, held the head between his hands, and with the smile of conscious strength said, "That head is in a vise." I accordingly placed the syringe in position for injection, not actually touching the mucous membrane; but at the first entrance of the fluid into the nostril, the babe made a sudden downward movement of its head, in spite of the doctor's hand, sufficient to cause, from contract with the smooth tip of the syringe, a very slight hemorrhage. After that this exceptionally strong doctor, in holding that four-months-old baby, did not scorn to bend forward and place himself in the position which experience long ago taught me is necessary for really holding a child's head motionless.

Dr. Winters very truly stated that tact is of great importance in such procedures as nasal syringing; but the kind of tact which is most valuable is that which thoroughly accomplishes necessary objects with the least wear and tear to the patient.

The treatment of nasal diphtheria, by means of any medicament applied by a medicine-dropper, as recommended by Dr. J. Lewis Smith, I cannot but regard as an error in the direction of dangerous inefficiency. The object of local treatment in diphtheria was well summed up by Dr. Loomis in the words, "cleanliness and disinfection," and these in this relation, as elsewhere, are usually attainable only by thorough, well-directed measures.

That spraying is a valuable method of cleansing and medicating the nasal passages in the treatment of catarrh is well known, and that it may sometimes be so in that of diphtheria in such expert hands as those of Drs. Bosworth and Delavan cannot be doubted; but the question remains, can any method of cleansing them be in general at once as thorough and as unirritating and as well adapted to cause dilution and removal of poison and transudative interchange through diphtheritic membrane *in situ* as the flowing through them of a stream of antiseptic fluid from a syringe or douche? That these objects cannot commonly be effected with the ordinary throat-atomizer I am positive, as I have seen too many melancholy instances of fatal toxæmia from nasal diphtheria, the result of valuable time having been lost in relying on this inefficient substitute for syringing. It may be added that by no atomizer whatever can spray be made to enter one nostril and come out of the other as spray.

Finally, on the very interesting case related by Dr. William H. Thomson, which is typical of an important class, I will make the following remarks: Can Dr. Thomson assert that at the time of the first chill there was not the commencement of a local diphtheritic process in the posterior nares—or, possibly, in the trachea? It will, of course, be replied that there was no evidence of that condition. It is astonishing how little evidence is sometimes manifested of the presence of con-

siderable amounts of diphtheritic membrane in concealed situations. I have seen quite a number of cases in which there was no evidence of it anywhere, except constitutional symptoms, in which I have, by syringing, washed pieces of membrane from the posterior nares several times in the presence of other physicians. In another case of an adult patient who had previously been frequently subject to grave catarrhal and bronchial attacks, another attack of a week's duration, similar in all its physical signs to the previous ones, under most competent and vigilant medical attendance, terminated fatally—no nasal obstruction, no croupy symptoms of respiration of voice, no visible membrane anywhere. There had been exposure to diphtheritic contagion two weeks before the attack. There were symptoms of toxæmia. The autopsy showed the trachea and bronchial tubes completely lined with diphtheritic membrane; none in the larynx; the posterior nares not examined.

I have no disposition to be "wise above what is written," and am far from asserting that there is never a case of "primarily constitutional" diphtheria; but, according to my experience, the more thoroughly such apparent cases of diphtheria without a *diphthera* are investigated, the fewer do they become.—*New York Medical Record.*

INFANTILE MARASMUS.

By Dr. I. N. Love, St. Louis, Mo.

Read in this Section on Diseases of Children of the Ninth International Medical Congress.

In presenting a paper for your consideration, with many misgivings, I select the subject of Infantile Marasmus. I am aware that many other subjects are more alluring, and such as this are, as a rule, unattractive, yet we must remember that nothing in the form of disease is trivial, for a human life is always involved, and all that influences and affects life for good or ill is of the greatest import.

A series of interesting cases met with in private practice during the past few years, compared with other cases occurring in hospital and dispensary practice, have impressed upon my mind the importance of this condition, and the means of antagonizing it.

The term marasmus, like malaria, is a misnomer, and expresses but little as regards the pathology of the disease; it declares simply that our patient is wasting away, repair on the part of the tissues having surrendered partially or completely to decay.

A condition of "Marasmus," wasting or consumption occurs in all forms of exhausting disease, but the name is only applied in cases of wasting unaccompanied with fever or symptoms pointing to any well defined disease.

It is more frequently met with among the young and the aged, but whether infantile or senile, it is usually dependent upon similar causes and conditions. Among infants we meet cases which can clearly be referred to congenital syphilis, which at once takes them off the list of marasmus cases, and places them under the specific classification. Others again have been so classified when they would probably have been more correctly diagnosticated as tuberculosis, tabes mesenterica, etc. Care in eliciting the family history and examining the cases will generally avoid these errors of diagnosis.

Many cases of so called marasmus, if closely investigated, will present a history and general indications of intestinal catarrh.

Niemeyer, in writing upon the subject of chronic intestinal catarrh of children, refers to the fact that the imperfect diagnosis of "marasmus" is frequently assigned to such cases, and he is undoubtedly correct.

Eliminating all cases clearly belonging to other classifications, there remain those cases of wasting or general atrophy, in which no fever or local lesion can be discovered. Pronounced pictures they are too, after a prolonged period of progression; muscles shrunken and flabby, osseous prominences everywhere visible, with the pale, shriveled, dry skin hanging in broad folds and wrinkles about them, like a pair of loose and baggy trousers upon calfless legs; face withered, wrinkled and worn, suggesting the miniature daguerreotype of some emaciated, toothless hag, the most pronounced features in the case being loss of flesh, loss of strength, loss of color, the complexion being of a dull leaden color.

Having excluded all cases of wasting dependent upon tangible conditions, such as tuberculosis, congenital syphilis, intestinal or gastric catarrh, etc., I shall devote my attention to the consideration of the cases which can properly be called marasmus.

They present all the symptoms above referred to, and in marked degree we have inactivity of the secretory glands.

In life there is dryness of everything, skin, alimentary canal and the emunctory organs in general; and after death, upon examination, we find further evidences of lack of fluidity or proper moisture of the tissues, confirming the thought that there has been a lack of secretion and excretion, exosmosis and endosmosis.

Primarily, then, I take the position that inactivity of the glandular system is at fault. In the very outstart of every infantile career we have more or less inactivity of the glands, the liver, with other glands, is larger (being more engorged) at birth relatively than at any later period of life. Attention to the proper establishment of the equilibrium of the circulatory, secretory and excretory system of the infant is of vital importance.

Given this torpid, glandular condition, coupled with improper or insufficient food, and other hygienic errors, we have the factors favorable to the furnishing of a full-fledged case of typical marasmus. The five digestive juices upon which depends the proper preparation of pabulum, for prompt appropriation on the part of the absor-

bents, are the products of parts of the secretory glands; and the proper elimination of effete matter, the ashes of combustion if you please, depends upon the zealous work of the excretory glands.

To illustrate my position I herewith report, in a concentrated form, the notes of one of a series of cases under my care during the past year.

A. D., born August 1st, 1886, of healthy, wealthy parents who have been under my observation constantly for over ten years (three other strong, hearty, robust children having been previously born), no hereditary taint whatsoever. At birth well formed; fairly well developed (the labor was, in common parlance, a dry one, but there were no complications, and nothing to indicate but what the child would be as healthy as his predecessors).

After a few days, bowels being slow in moving, olive oil was ordered, and nothing more was heard from the child until it was two months old. At this time aid was sought, for the reason that the child was constipated, uncomfortable, and evidently not thriving. Inquiry developed the fact that from birth there had been habitual constipation, but little urination, and continual restlessness and discomfort. The mouth and tongue were dry, the skin inactive, dirty and yellow-looking, the child smaller than at birth, with shrunken and flabby limbs, distended, overfilled and protruding abdomen, with the blue and close crowded veins standing out like whip cords over its surface.

There were evidently lack of proper secretion, excretion and assimilation; the baby was starving though apparently furnished with sufficient and proper nourishment by the mother. I at once ordered one grain of calomel and twenty grains of sugar of milk triturated thoroughly for a full half hour, and divided into twenty powders, one powder to be given every ten hours dry on the tongue, and followed at frequent intervals with liberal quantities of water. After twenty-four hours had passed, the bowels began to move freely, the aid of several warm water injections being given, and enormous quantities of hard, undigested, cheesy masses were passed, followed for several days by numerous large, loose, offensive dejections. More than likely on account of this great accumulation an acute intestinal catarrh would have soon been developed. During this time when the inactivity of the glandular system was becoming aroused and the outlook better, the mother was taken very seriously ill with malarial fever, and it was soon apparent that a substitute was demanded. A strong, full habited wet nurse (with a baby of the same age as our little starving patient, about three times as large, and almost hoggishly fat) was secured, and to her credit, she refused to serve unless permitted to bring her child with her, promising to artificially feed him, and reserve her breasts for our patient. At this juncture the family removed some distance from the city and beyond my observation, until about six months had elapsed, when I was summoned and found my little patient in a condition every way aggravated. Investigation developed the fact that the motherly instinct of the wet nurse had prompted her to permit her own lusty boy to empty her breasts before giving them to the little starvling under her care. Not to go too much into detail, suffice it to say that inability to secure a proper wet nurse soon necessitated artificial feeding. Various foods in the market were tried without avail, a fermentative dyspepsia and gastro-intestinal catarrh presented, and the beginning of the end seemed near. All milk and malty foods were now relinquished by the stomach, and a raw meat liquid food, ten drops in a teaspoonful of water and two drops of brandy, were given every hour, and the child ordered to be given a bath every ten hours in either warm, fully digested milk, warm cod liver oil, or warm water with a teaspoonful of alcohol to the pint.

The intestinal medication was the infinitesimal dose of calomel triturate (previously referred to) every two hours, given for the purpose of stimulating secretion and excretion, antagonizing fermentation, antisepsis in the rendering inert of the ptomaines and other poisonous products of decomposition in the alimentary canal. The course was followed uninterruptedly, except by the gradual increase of the food, with gradual improvement for one week. Artificially digested milk was then cautiously added to the diet list, and the amount of the liquid raw meat food doubled. From this time on, the progress toward perfect nutrition, growth and development was more and more rapid, and within one month he was becoming a well nourished baby, and possessed of a ravenous appetite, taking goodly quantities of water, and his secretory organs doing good service.

The one-twentieth grain of calomel was continued three times daily, for two months, and after that resumed whenever indicated. The nutritious baths with gentle massage and friction were diminished in frequency, but not thoroughness, to three times daily, and later were given only morning and night.

From the observation and study of a series of twelve cases (the case which I have presented being typical of the twelve), where well defined causes of innutrition, such as syphilis, tuberculosis, etc., did not enter, I feel that I am justified in deducing the following:

1st. Infantile marasmus, so called, is dependent primarily upon torpidity and inactivity of the glandular system, and aggravated by unsuitable, over-abundant or insufficient food and unsanitary surroundings.

2nd. That which is of first importance in the treatment is the arousement of secretion and excretion, and the most valuable remedy we have for this purpose is minute doses of calomel given in conjunction with as much water as can conveniently be administered; the two agents, calomel and water, both being ardent accelerators of glandular action, stimulators of the secretion of the digestive juices, true aiders and decided openers of the

dammed up organs of diuresis, and awakeners of defecation, cleansers of the vital sewerage system.

3rd. In the matter of diet, the mother's milk is best, and some other mother's milk next best.

Whether mother's milk or artificial food be given, the quantity and quality should be most carefully guarded.

In many instances, the liquid, raw meat foods in small quantities, well diluted and frequently given, will be of great service. All artificial foods should be predigested.

4th. In extreme cases the administration of soluble foods in the form of baths, and by gentle friction, will be of value, and in all cases gentle massage and frequent bathing (sometimes adding diffusable stimulants to the water) are of great service, much of the water being directly absorbed by the hungry and thirsty tissues.—*St. Louis Med. Review.*

THE DYSPNEA OF ASTHMA AND ITS TREATMENT.

The causation of the asthmatic paroxysm is sti.[1] in dispute, and at least three theories have advocates more or less zealous. The demonstration of the bronchial muscle gave a firm anatomical basis to the view that the attack was due to its spasmodic contraction. Wintrich and Bamberger hold that such a condition is inconceivable with the enlarged and hyper-resonant state of the lungs during the paroxysm, and they support a theory of tonic spasm of the diaphragm, either alone, or with the other muscles of respiration. A third view, that of Traube and Weber, attributes the attack to swelling and hyperemia of the bronchial mucosa —through vaso-motor agency—similar to that which occurs in the nasal mucous membrane in the early stage of catarrh. At present a majority of the observers are divided in opinion between the theory of spasm and that of hyperemia with tumefaction.

In the American Journal of the Medical Sciences for October, 1887, Fraser, of Edinburgh, relates some interesting observations which support the spasm theory, and have a very practical bearing on the treatment of the attack. It occurred to him to study the auscultatory phenomena during the asthmatic paroxysm, in order to ascertain if they could be modified by the action of any agent known to control the contractility of unstriped muscle. Now, it is well known that the most constant and striking physical signs accompany asthma, viz., the dry whistling *râles* (without any moist sounds) produced in the tubes, either by spasm of the muscle or swelling of the mucosa. If it could be shown that the administration of a remedy known to relax unstriped muscle was followed by a disappearance of the *râles* and relief of the dyspnea, a strong point would be made in favor of the spasm theory. This Fraser has done, using the nitrites whose capabilities of relaxing non-striped muscle in the case of arteries is well known. Eight observations are recorded in which either nitrite of amyl, nitrite of ethyl, nitrite of sodium, or nitro-glycerine was given, and the chest carefully auscultated before and after every administration. In each instance, improvement more or less positive followed, and the dyspnea and sounds disappeared simultaneously. From the well recognized action of these bodies in reducing the contractility of non striped muscle, it seems reasonable to attribute the relief to the relaxation of the spasm of the bronchial muscles.

The nitrite of amyl was given in solution, five minims in two drams of water, or inhaled, ten minims on blotting paper at the bottom of a small glass tumbler. The nitrite of ethyl (nitrous ether) acts well in ten minim doses of a twenty-five-per cent. alcoholic solution. Of the nitrite of sodium ten minims of a ten-per-cent solution, and of the nitro-glycerine five minims of a one-per-cent solution were employed. The administration of nitrite of amyl in the asthma paroxysm has long been practiced, but the accurate determination of the coincidence of the relief of the symptoms with the disappearance of the physical signs has not before been so closely followed. We believe a combination of the nitrite of amyl, given during the paroxysm, and the nitrite of sodium given continuously, will act more surely than either remedy alone, as the latter gives that permanence which we miss in the action of the nitrite of amyl.—*Phil. Medical News.*

THE TERRORS OF CHILDHOOD.

How often do we hear mothers, soothing very young children to whom it has been found necessary to give a dose of medicine, console them with such talk as this : " Did the nasty old doctor give muzzer's precious d-a-a-r-l-ing nasty old medicine? Muzzer'll whip nasty old doctor!" or " Ugly old doctor cut baby's arm—muzzer'll beat him for it!" Or, when a young one is refractory we hear them say " You'd better behave yourself! I'll send for the doctor and make him vaccinate you again!" These and a thousand other foolish things are said until to the young mind the doctor becomes the very embodiment of terror—a buggaboo from whom the child shrinks in fright and aversion. And yet how often the infant's life depends upon its love of and confidence in the physician! The wise mother, realizing this fact, should teach her children to love and trust the family physician. These thoughts were suggested to us recently in reading a most entertaining work by Professor Mosso, of Turin, entitled *La Paura* (Fright or Fear). Among other anecdotes he says : " An old soldier, whom I once asked what had been his greatest fright—what had caused him the most suffering from terror, answered " One thing alone,—a terror that has pursued me through life and which yet affects me. I have looked death in the face I know not how many

times, and surrounded by the greatest carnage and danger, I have never lost my courage. But when I pass a little church in the depths of the forest, or near a deserted chapel on the mountain, I instantly think of an abandoned oratory that was in the outskirts of my native village, and I become frightened. I look around me and see in imagination the corpse of an assassinated wayfarer, just as I saw it when a little child, and with whose wandering spirit an old servant would threaten me." These terrors, these buggaboos of childhood, continues our author, remain through life, a fatal legacy, a chain enthralling reason. We remember them almost every day of our lives. A subterranean vault, the sombre arch of some bridge, the ruins of some abandoned dwelling with its mysterious darkness and silence—all bring back the atmosphere of infantine timidity. It is exactly as though the eye of the child again rested upon the very scenes. It is not the individual mother, nurse or servants who produce this effect—but the result of generations of wrong training, that have warped the human mind into fantastic shapes exactly as barbaric races have gradually changed the shape of the generic skull by ages of artificial compression. The children of Greece and Rome were frightened by tales of vampyres which sucked the blood of sleepers, of cyclops and chimœras. This detestable mode of education has not vanished and our babies of to-day are still terrified by ogres and dwarfs, giants and griffins, dragons and demons, magicians and sorcerers. Every day we hear a mother or nurse say to a naughty child "Look out! Old bouger-man will catch you! Old bear will eat you up!" or some such blood-curdling threat, the effects of which will never die, and which in many instances render the child the father of the timid, nervous man.

THE TREATMENT OF RHEUMATISM.

Dr. George L. Peabody treats his cases of acute rheumatism with a combination of salicylic acid and iron, the formula for which was obtained in the following way:

About a year ago a nurse was pouring into a common receptacle some remnants of different medicines, when she noticed that a black precipitate formed by iron was turned into a transparent solution of a rich red hue as soon as she poured the fluid contents of another bottle. Being a young woman of an inquiring turn of mind, she asked the house physician the cause of this phenomenon. The house staff, to help her in her desire for information, experimented with the drugs that she had been throwing out, and ascertained that her manipulation of chemicals had been this: She had first poured into the receptacle a salicylic acid. Into this she had poured a solution of iron, with the result of producing a black precipitate. To this she added some sodium phosphate, with the result of producing a clear red solution.

This at once gave a clue to the means of combining iron and salicylic acid without forming a precipitate. The facts were submitted to the apothecary of the hospital, and from them he produced the following formula, which has been in constant use nearly a year: ℞. Acidi salicylici, gr. xx; ferri pyrophosphatis, gr. v; sodii phosphatis, gr. i; aquæ, ℥ ss.

This method of giving this drug in rheumatism has now been fairly tested. It may be said to agree as well with the stomach as any other, and it has the great advantage of not being followed, even if its use be long continued, by the severe anæmia that so often follows the use of salicylic acid, if it be given without iron.

The dose which is described in this formula is given every two hours until improvement justifies a diminution in the frequency, or until constitutional effects are pronounced.—*Medical News.*

SMALL DOSES.

By John Aulde, M.D., Philadelphia, Pa.

That there is a tendency on the part of physicians to discontinue polypharmacy, and depend more and more on single remedies (specific medication), and prescribe smaller doses, no one will contradict. The innovation is commendable, and is one of the most promising features of the times. As a compliment, then, to the paper on "Large Doses," which appeared in the *Reporter*, Nov. 5, 1887, * I beg leave to submit the following remarks:

In certain heart affections, such as cardiac dilatation, one or two drops of the tincture of digitalis may be given three times daily with great benefit. Cardiac hypertrophy, on the other hand, may be materially overcome by the exhibition of one-drop doses of aconite tincture three times daily. Acute inflammatory conditions, like tonsilitis, bronchial catarrh, and threatened pulmonary congestion, as well as headache due to arterial tension, are immediately and favorably affected by drop or half-drop doses of tincture of aconite every hour, or half-hour, for a few hours. Frequently, headache of the congestive variety, with a band-like feeling around the forehead, may be quickly relieved by drop doses of nitro-glycerine, at intervals of five or ten minutes, until five or six drops are taken. The form known as "sick headache," dependent on a bad condition of the stomach, will often disappear in half an hour, under the influence of two grains of potassium iodide dissolved in water, and taken in divided doses at from three to five minutes. Like aconite and nitro-glycerine, gelsemium occupies an important position in cases of this class, but its uses are not so well recognized as that of the other drugs named.

Belladonna, or its active principle, atropine, in doses of one two-hundredth of a grain, is a valu-

* *Alkaloidal Medical Monthly*, November, 1887.

able remedy in the incontinence of urine in children, a single tablet of that amount dissolved in water and taken at bedtime being often all that is required. Quinine, in doses of one-tenth of a grain, may be given to those who are unable, on account of idiosyncrasy, to take larger doses, and it will often be found that these small doses are sufficient. The tincture of hyosyamus, in doses of from three to five drops, or one drop of the fluid extract, in combination with triticum repens, made up in the form of a hot tea, is an admirable remedy in cases of irritability of the bladder, with fugitive neuralgic pains about the abdomen and in the lumbar region.

In the treatment of certain classes of dysentery, a modification of Hope's camphor mixture will be found of signal service. The dose may be limited to two or three drops of the deodorized tincture of opium, with an equal amount of dilute nitric acid, or aromatic sulphuric acid, with sufficient camphor water to make a teaspoonful, and taken hourly or half hourly, as the circumstances seem to demand. In similar cases, where it is desired to produce an effect on the alimentary canal with a view of getting rid of objectionable matter, a single grain each of opium and ipecac may be combined with four grains of blue mass, and divided into eight parts, one part to be taken every hour, or half hour, with the happiest effect.

The malate of iron in minute doses is an excellent remedy as a tonic, and Blaud's pill, one three times daily, is often sufficient in cases of anemia, although it is usually stated that the dose should be from four to six pills. Small doses of nux vomica, one drop of the tincture, or one-twentieth grain of the extract, are frequently as serviceable as a tonic as the larger doses; while strychnine, in doses of one-sixtieth or one one-hundredth of a grain, will accomplish all that is desired, when the stomach is in a suitable condition and is much better, as it is much safer, than larger doses. In some cases of diarrhœa, five grains of bismuth, with an equal quantity of saccharated pepsin, every two hours, acts like magic.

Dysmenorrhœa, the congestive kind, with belly-ache and excruciating headache and pain in the back, which is often seen in young girls, and women with displacements, can often be relieved by a single dose of ten drops of choloroform on a lump of sugar. Certain cases of this nature seem to do better with cannabis indica, and I have seen cases, which had resisted ordinary treatment for days, wholly relieved in an hour by the use of half-drop doses, at intervals of five minutes. Cannabis indica is a favorite remedy in trifacial neuralgia, and given in the manner indicated above, the pain will shortly disappear. Profuse diaphoresis may be produced by the frequent administration of half minim doses of extract of pilocarpus. Phosphorus, in doses of one one-hundredth-and-fiftieth of a grain, given three times daily, will produce such an effect that it may be tasted by a susceptible patient for several days afterwards. Morphine, in tablets containing one-fiftieth of a grain, can be given in many instances with marked benefit. One drop of a one per cent. solution of the fluid extract of rhus toxicodendron is often an efficient remedy in stubborn attacks of sciatica and other affections of a like character. One tenth of a grain of calomel, given every hour, it is well known, will produce an effect on the bowels equal to ten grains given at one time. Corrosive sublimate, one-fiftieth of a grain three times daily, is an excellent remedy in disease of the stomach with fermentation and eructation of gas. It is doubtful if we have any better remedy for the treatment of boils and carbuncles than small doses of calcium sulphide, one-tenth of a grain every two hours. Last, but not least, is strophanthus, the heart tonic *par excellence;* two to five drops of the tincture should be given three times daily, in all cardiac affections where there is aortic or mitral insufficiency.—*Med. and Surg. Rep.*

THE TREATMENT OF COLDS.

Dr. J. H. Whelan, in the *London Practitioner* for March, gives the following sure cure for colds. The formula used is as follows:

℞ Quininæ sulphatis.....grs xviii
Liquoris arsenicalis.....m xii
Liquoris atropinæ.....m i
Extracti gentianæ.....grs xx
Pulveris gummi acaciæ.....q. s.
Ft. pilulæ.....xxii. sig.

Pulveris gummi acaciæ, q. s., in fiant pilulæ xii Sig. One every three, four or six hours, according to circumstances.

If these pills be commenced to the early stage of a common cold—*i. e.*, when the affection is as yet confined to the nose and pharynx—the affection will be nipped in the bud. At starting one pill should be taken every three or four hours, and later on every six. If a catarrhal subject has a box of these pills always at hand he has a weapon wherewith to meet and defeat his enemy. The longest time the author has seen a cold last whilst the patient has fairly taken these pills was three days. How the remedy acts he does not know, except it be as a powerful nervine and tonic, bracing the patient's tissues up to resist the attacks of the exciting cause of the affection.

COMPOUND WINE OF CREASOTE FOR PULMONARY DISORDERS.

The following is prescribed for incipient pulmonary tuberculosis where the temperature is not much above normal:

R Creasoti, 13 G.;
Tr. gentianæ, 30 G.;
Spt. vini, 250 G.;
Vini Xerici, q. s. ad fiat 1000 G.
M.

Sig.—Two or three tablespoonfuls to be taken during the day.—*Revue Générale de Clinique et de Thérapeutique.*

THE USE OF INDIGO AS AN EMMENAGOGUE.

Dr. S. T. Yount, of La Fayette, Ind, in a paper read before the Tippecanoe County Medical Society, recommends very highly the employment of indigo as an emmenagogue. He writes: "It is perfectly safe, thoroughly reliable, and painless in its action. It is insoluble in water or alcohol, but readily dissolves in strong sulphuric acid. This so changes its character that it is then readily soluble in water without changing its color.

"It is odorless and tasteless, and may be given in doses of ʒ j. to ℥ ss. The great difficulty is the nausea and vomiting which the crude drug produces when given in very large doses. There are three varieties of the crude drug: Bengal, Turkey, and Chinese.

"The Bengal is richest in coloring matter, containing about fifty per cent., and inasmuch as the virtue resides in the coloring matter, the best effects are obtained from this variety. As an emmenagogue it has been used in my practice about a year and a half. My attention was first directed to it on one occasion when I was called to remove a retained placenta in a case of abortion at the third month. Naturally inquiring what had been taken to produce the abortion, I was told that the lady had taken indigo in teaspoonful doses three times a day, that she had taken it several times, and always with a most satisfactory result to her.

"She informed me at the time that it always produced great nausea and watery discharges from the bowels. Acting on the suggestion offered by this case, I tried it in many and various cases. In one case, where a young lady, aged eighteen, had missed for thirteen months, the menses returned after taking the crude indigo for two weeks; but the disgust and nausea produced by the bulky powder rendered her unable to continue it longer, and she menstruated three more months; then they stopped again. After using the remedy for eight or nine months in this crude state, I set about to find some way of condensing it, or rendering it less bulky, for it is the bulk of the dose, not the remedy, that disturbs the stomach and disgusts the patient. About a month later Mr. O. G. Zerse, an apothecary of La Fayette, turned over to me a concentrated extract, as he called it, five grains of the extract equalling twenty-six grains of the crude drug. I have since then used it in forty-eight cases of amenorrhœa, of all kinds and causes, with but three failures, and a colleague has used it in six cases without any failure. To test its effect I have given the remedy in the amenorrhœa of phthisis, and have always had a definite result, namely, the appearance of the menses, the menses stopping again when the remedy was stopped. The effects with the crude drug and the concentrated preparation are identical, except that the nausea does not occur when the extract is used. The menses come on painlessly and very suddenly. There is no warning given. In thirty cases the effects occurred about two days after the last dose, the menses coming on without any warning, gushing out and running often to flow. The hemorrhage in none of the cases was dangerous or alarming. During the administration of the drug the os uteri becomes soft and patulous, admitting the end of index finger. There is often a serous discharge from the vagina. The urine becomes of a brownish-green color and offensive odor. The stools are of a bluish color. The passages are watery and offensive.

"To summarize, indigo is an emmenagogue of decided value in any case. It should not be given to pregnant women. It should not be given where there is an irritable stomach. It should not be given in cases where there is a history of a previous pelvic inflammation. It should not be given in cases where there is marked cerebral anæmia. It may be given in doses of ℥ j. to ʒ ss., two or three times a day, of the crude drug, or in five-grain doses of the concentrated extract. The powder of the crude should be given mixed with a little subnitrate of bismuth, and the patient should drink a little whiskey afterward. In cases where given continuously for a long period, give tr. gentian comp. after each dose. Give the concentrated extract in capsules mixed with extract of gentian and subnitrate of bismuth." —*N. Y. Med. Record.*

PUNCTURE AND INJECTION OF ETHER AND IODOFORM IN PURULENT ABSCESS OF THE BUTTOCKS.

At a recent meeting of the Paris Surgical Society, M. Trelat reported a case of purulent abscess, successfully treated by puncture and injection of ether and iodoform. The patient, a girl aged 17, had been attacked with typhoid fever eighteen months previously, and the abscess was diagnosed as necrobiotic, consecutive to vitreous alternation of the muscular fibres. A puncture was made, which gave issue to 45 grammes of pus, and 90 grammes of ether and iodoform were injected into the cavity. M. Trélat asked whether simple abscesses might not be treated in the same way. M. Terrier thought that in cases like that cited by M. Trélat simple puncture was sufficient. M. Championnière has found iodoform very irregular in its effects, and objected that the injection of this substance in ether constituted a long and painful treatment. M. Dentu had obtained better results with alcohol and chloride of zinc. M. Trélat, in his reply to these objections, stated that it was important, in an æsthetic point of view, to avoid the cicatrix which always remained after an incision, and this was practically accomplished by puncture and the injection of iodoform.—*London Medical Record*, May 16, 1887.

ON NASAL VERTIGO.

Dr. Joal, of Mont Dore, read a paper on this subject before the French Congress of Laryngology, in April, 1887, in which he stated the following conclusions:

1. There exists a nasal vertigo, a true *vertigo a naso laeso.*
2. It belongs to the group of reflex vertigos, such as gastric, laryngeal, uterine vertigo.
3. Irritation of the trigeminal filaments innervating the mucosa of the turbinated bodies, and the septum, is the starting point of the condition.
4. This irritation is transmitted to the vasomotor nerves through the spheno-palatine ganglion, whence arises circumscribed anæmia of the brain and vertigo.
5. The affections which give origin to vertigo are (1) nasal fluxions (odors, irritant vapors, snuff, flowering grasses); (2) acute coryzas; (3) chronic catarrh, especially the hypertrophic form; (4) mucous polypi; (5) post-nasal catarrh.
6. Vertigo is especially provoked by nasal affections of little importance.
7. The nasal reflexes are principally developed in arthritic individuals.
8. Vertigo can occur alone or be accompanied by other nervous phenomena—troubles of vision, muscæ volitantes, hemicrania, nausea, vomitings, great excitability, hypochondria, intellectual disability, nightmares, spasmodic cough, dyspnœic cases, exaggerated secretions, syncope, feeble pulse, pallor of the face.
9. In order to establish a diagnosis, the nasal fossæ should be examined in every individual suffering from vertigo.
10. The recognition of nasal vertigo will sensibly diminish the number of cases of gouty, rheumatic, anæmic, congestive vertigos, as well as cerebro-cardiac neuropathy.
11. Vertigo ceases with the cure of the nasal affection to which it owes its origin. The condition has no connection whatever with Meniere's disease, and is independent of any affection of the ear. The author cites nine cases, on which, together with cases recorded by Massei, Guye, Gnuaro, Hering, Hack, and others, his essay is founded.—*Journal of Laryngology and Rhinology.*

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MONTREAL, DECEMBER, 1887.

PERSONAL.

Dr. Caswell (M.D. Bishops College, 1883), is practising in Gageville, N. S.

Dr. C. D. Ball (M.D. Bishops College 1884), is settled in St. Auna, California.

Dr. Wallace Clarke (M.D. McGill 1871), of Utica, N. Y., was in Montreal on a brief visit this month.

Dr. Leprohon (M.D. Bishops College 1879) has returned to Montreal from the Western States. He has commenced practice in his native city.

Dr. Hingston has been elected President of the Montreal School of Medicine and Surgery (Victoria College), in place of Dr. D'Orsonnens, whose term of office has expired.

THE LONDON ILLUSTRATED NEWS.

This is the best illustrated paper in the world, and should have the entry into every household able to afford it. Its high subscription price (which is still retained in England) prevented many from subscribing. It is now republished in New York at $4 per annum, which places it within the reach of nearly every one. A single copy can be purchased from any newsdealer at ten cents. We strongly recommend it to our subscribers.

REVIEW.

Lessons in Gynecology, by WILLIAM GOODELL, A.M., M.D., Professor of Clinical Gynecology in the University of Pennsylvania, etc. Third Edition, thoroughly revised and greatly enlarged, with one hundred and twelve Illustrations. Philadelphia, Pa., D. G. Brinton, 115 South Seventh Street, 1887.

This book is not a complete treatise upon the Diseases of Women, but is mainly the outcome of Clinical and Didactic lectures delivered in the Medical Department of the University of Pennsylvania. This is a most interesting and instructive addition to the many late works on the above subject; but the manner in which the component parts of this volume are put together, viz., being Clinical histories in book form, make the reading very interesting and not nearly so wearying as the ordinary form of works on gynecology. The style of this book is very similar to Sayre's work on Orthopœdic Surgery, and like this volume Goodell's Gynecology will, we predict, have a wide spread fame, and should be in the possession of every practitioner. The volume is beautifully bound and the letter press is large, clear and very distinct and the quality of the paper is of the very best.

THE CANADA MEDICAL RECORD.

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Original Communications.

REPORT OF A CASE OF DIABETES MELLITUS SUCCESSFULLY TREATED BY NITRO-GLYCERINE.

By R. A. KENNEDY, M.D.,

Emeritus Professor of Obstetrics and Diseases of Women and Children, Faculty of Medicine, University of Bishop's College.

(Read before the Medico Chirurgical Society.)

MR. PRESIDENT AND GENTLEMEN. Any remedy which can arrest the course or hold out a prospect of cure of so intractable and generally fatal disease as diabetes must be of great interest to us all.

I therefore present nitro-glycerine as one such remedy which so far as I know has not hitherto been used for this complaint. That it had a decided beneficial action is well shown by this report, the value of which is enhanced by the complete analysis of the urine, made daily and extending over a period of ten months. I am indebted to Prof. Bemrose, F. C. S., for the interest and careful, attention he gave in determining these results whereby an accurate record was obtained. The literature of diabetes leaves us uncertain as to the pathological conditions which induce the disease. Irritation of the floor of the fourth ventricle of the brain causes glycosuria by inducing a paralysis of the vaso motor nerves of the liver. The pneumogastric centre being deranged, and the disturbance of the normal conditions of the nerve affecting the vaso motor nerve through its intimate connection with the cervical ganglion of the sympathetic. Such experiments favor the idea of disease of the medulla oblengata or other nerve centres of the brain as the cause; but in post mortem such is not always found to be the case. In some no definite pathological condition has been discovered, while in others the disease has been apparently local, affecting either the liver or pancreas. From these facts, and from the comparatively few cases which have come under my observation, I have been led to the belief that we should more carefully define our cases into those of centric and those of local origin. As a rule when sugar is discovered in the urine we place our patients on the recognised diabetic remedies, without regard to the probable seat of the disease. Remedies which effect the brain centre may benefit disease in them, but can they be as effectual or of any benefit if the disease is in the liver or pancreas. Should we, therefore, not vary our treatment accordingly? In the greater number of cases treated by me local conditions chiefly were involved. This class of cases occurred in elderly people, generally very stout, and good feeders. In these cases dyspeptic symptoms are prominent, as the excess of hydrocarbonaceous food taken into their stomachs increases the work of digestion. Many such persons I think live out a long number of years without serious illness, and unless accident discovers sugar in the urine there is nothing to indicate their diabetic condition except it may be an excess of urine. Such patients I have been unable to place upon any diabetic diet, as they will not adhere to it for any time. One patient, a woman, to my knowledge has had sugar in the urine for over eight years, is very stout and eats largely. She has attacks of indigestion, and at times intense genital pruritis, otherwise there is no change for

the worse as the years pass by. Of a different class is the case I report, centric in its origin and more often met with in young persons, which no doubt accounts for its fatality at early periods of life.

Mrs. B., age 28 years. Height 5 ft. 6 in., weight 123 lbs., of spare habit of body. Family history good, both parents alive and well, and no discoverable, hereditary tendency. Came under observation and treatment October, 1886.

Previous to commencement of present disease had always enjoyed perfect health, and accustomed to long daily walks. Had a miscarriage several years ago, with this exception menstruation has has always been normal in every respect In July 1886, first noticed a slight dimness of vision, heaviness of the legs, and was easily tired, especially on walking up-hill. The continuance of this weakness induced her to try change of air, and in September, while at Providence, Rhode Island, was troubled with intense thirst, which was ascribed to fatigue of travelling, and to the hot weather. Returning to Montreal in October I was consulted; there was great bodily weakness, excessive thirst, pains increased in severity, and her eyesight much worse, a colored ring being noticed when looking at a distant light. As this latter symptom indicated a possible glaucoma, her eyes were examined by an occulist without anything being disvoverable. At the same time the urine was examined with the result of finding a large amount of sugar. She was placed upon as strict a diabetic diet as possible, which, with exceptions noted, has been followed throughout, any variations being always followed by a rise in the sugar, well shown on the record Dec. 25th. The desire for sweetening was obviated by the use of saccharine, which answered the purpose, but otherwise had no apparent physological action. The largest amoun- of sugar excreted in one day was on Oct. 17th, 1886, amounting to 8.75 oz. The total sugar excreted in 10 months was 50 lb. 10 oz. With the analzsis will be found the treatment and food. The patient at this date, January, 1888, feels perfectly well and strong.

Although some of the sugar percentages and Sp. Gr. agree very well, as for example:

Oct.	23	s.g.	1.0288	Urine	90 ozs.	Sugar	4.5
"	24	s.g.	1.0300	"	60 ozs.	"	4.5
Nov.	11	s.g.	1.03	"	70 ozs.	"	2.916
"	13	s.g.	1.028	"	70 ozs.	"	2.916
"	21	s.g.	1.027	"	110 ozs.	"	6.105
Dec.	15	s.g.	1.027	"	100 ozs.	"	5.555
"	19	s.g.	1.031	"	88 ozs.	"	4.884
"	18	s.g.	1.031	"	90 ozs.	"	4.995
"	26	s.g.	1.031	"	144 ozs.	"	7.992

Others are very wide apart, as for example:

Mch.	24	s.g.	1.035	Urine	60 ozs.	Sugar	2.28
"	27	s.g.	1.045	"	60 ozs.	"	2.28
Apl.	19	s.g.	1.032	"	60 ozs.	"	3.105

it was therefore thought worth while, the urine being again saccharine, to estimate the total solids and ash as well as the sugar and urea, and the following was worked out during the month of September, 6 days only being lost.

The sugar totals vary as much as before:

Sept. 29th 58 ozs. Urine s.g. 1.0377 Sugar 1.276
" 30th 58 ozs. " s.g. 1.0360 " 1.682

but on the 29th the ash is 0.52348 oz., on the 30th only 0.36223 oz., and the urea also is higher on the 29th.

If however the total solids and Sp. Grs. are compared with published tables of the Sp. Gr. of carbohydrate solutions:

2.5	starch sugar	=	s.g.	1.0104
5.0	" "	=	"	1.0208
7.5	" "	=	"	1.0313
10.0	" "	=	"	1.0424

The September work will be found fairly near:—

Sept.	4th	Total solids 8.4	s.g.	1.038
"	8th	" 10.5	s.g.	1.040
"	12th	" 7.0	s.g.	1.031
"	29th	" 7.81	s.g.	1.0377

It appears therefore that the Sp. G. is no sure indicator of the amount of sugar present; also up to 1.023 it will not determine its presence or absence since

July	16th	s.g. 1.021,	sugar,	0.562
"	24th	s.g. 1.024	"	0.000
"	25th	s.g. 1.023	"	0.000
Oct.	30th	s.g. 1.017	"	0.511

On October 31st, the s.g. was 1.021, and total sugar 1.345; the calculated percentage is 2.359 oz., and that found by Fehling is 2.36; total solids calculated as above from the s.g. is 1.85, leaving only 0.505 oz. for all other bodies; it is unfortunate that the direct estimation of solids, ash and urea was not suggested at that time.

As a rule, when the amount of drink taken is large the sugar is higher, although the volume of urine may be the same, e. g.:—

Feb.	2	Drink,	45 oz.,	Urine,	60 oz.,	Sugar,	2.73
"	4	"	62 oz.,	"	61 oz.,	"	3.3385
and "	6	"	79 oz.,	"	80 oz.,	"	4.000
"	7	"	88 oz.,	"	80 oz.,	"	4.208

of course when the urine is increased much in quantity, the sugar is still higher:

Feb. 12 Drink, 82 oz., Urine, 100 oz., Sugar, 6.15

RECORD FOR 24 HOURS ENDING 8 A.M.

Date.	Sp. Gr.	Drink taken.	Urine	Sugar for 24 hours.	Urea for 24 hours	Aceto Acetic Reaction.	Medicine.	Symptoms.
1886	60 F.	oz.	oz.	oz.				
Oct.								
11	1.040	....	140	7.77	.....	.....	½ gr. Codeia t.d.	Very weak, thirst excessive.
12	1.042	....	140	7.77	.....	.....	"	"
13	1.07	....	120	6.00	.....	.....	"	Thirst less.
14	1.05	80	120	6.60	.....	.....	½ gr. "	"
15	1.029	100	80	5.00	.....	.....	"	"
16	1.028	120	100	7.14	.....	.....	"	"
17	1.03	100	140	8.75	.....	.....	¾ gr. "	"
18	1.025	100	120	5 nearly	.....	.....	"	"
19	1.028	100	120	6.0	.....	.....	"	
20	1.029	100	120	6.31	.....	.....	1 gr. "	Very dull and desponding.
21	1.029	100	110	6.105	.....	.....	"	Dizzy ; vomiting.
22	1.029	100	120	5.46	.....	.....	"	Vomiting increased, too weak to stand.
23	1.028	112	90	4.50	.....	.....	¾ gr. "	
24	1.030	80	90	4.50	.....	.....	"	Heavy night sweats
25	1.029	40	56	2.80	.....	.....	1 gr. "	Night sweats and chills.
26	1.0242	120	80	2.79	.....	.....	"	
27	1.025	40	45	1.251	.....	.....	"	
28	1.0305	85	80	3.64	.....	.....	"	
29	1.0246	96	90	3.87	.....	.....	1¼ gr. "	
30	1.017	67	46	0.511	.....	.....	"	
31	1.021	46	57	1.345	.....	.....	"	Vomiting till very weak.
				103.112				
1886								
Nov.								
1	1.0175	70	40	0.168	.....	Faint reaction	Tr. Iron and Chloric ether.	
2	1.0182	60	30	0.3	.....	Stronger	No codeia.	Pain right side, bad night.
3	1.019	110	47	1.175	.....	V. strong	"	Side worse.
4	1.024	100	80	4.0	.....	None.	"	
5	1.0265	90	100	5.0	.....	"	Iron & ether & ¾ gr. Codeia at night	Heavy night sweats, limbs cld
6	1.0220	98	90	2.493	.....	"	" " and 1 gr. " "	"
7	1.021	92	95	4.7	.....	"	" " " " "	Side better.
8	1.038	118	104	3.848	1.304	"	Same with podoph and nux pill.	Pains over back & shoulders
9	1.036	88	105	3.496	1.7 n'ly	"	"	Bad night, cold sweating.
10	1.0265	66	60	1.5426	1.1	"	Iron & Strych with Ergot, no Codeia : 20 grs. Na. Br. at night.	"
11	1.03	80	70	2.916	1.132	"	"	"
12	1.027	95	90	3.6	1.455	"	"	"
13	1.028	95	70	2.916	1.283	"	"	"
14	1.03	84	100	4.762	1.752	"	" + 1 gr. Codeia	Diet strict.
15	1.028	75	85	3.269	1.58	"	"	
16	1.03	82	81	3.685	1.482	"	"	
17	1.0275	72	90	3.6	1.553	"	Iron and Strych. with Pil. Opii.	
18	1.026	80	102	4.999	1.43	"	" with Pil. Codeia.	Health C's crude gluten
19	1.025	67	68	2.264	1.563	"	"	Pain in back.
20	1.025	72	75	2.884	1.59	"	"	Worse.
21	1.027	80	110	6.105	1.374	"	1 gr. Codeia with 20 grs. Na. Br. if sleepless.	Very bad.
22	1.029	100	112	5.6	1.24	"	"	
23	1.025	86	76	2.5	1.671	"	"	Better.
24	1.025	63	100	3.846	1.4	"	"	"
25	1.028	60	94	4.277	1.51	"	"	No pain, very tired at night
26	1.026	54	100	4.166	1.51	"	"	"
27	1.0315	86	116	4.55	1.348	"	"	"
28	1.028	75	92	3.538	1.635	"	"	"
29	1.028	78	88	2.933	1.76	"	"	40 oz. milk ; no gluten.
30	1.0275	97	100	5.00	1.832	"	"	"
				104.1326			"	"
								Legs very heavy.

Date.	Sp. Gr.	Fluid Ext.	Urine	Sugar for 24 hours.	Urea for 24 hours.	Aceto Acetic Reaction	Medicine			Symptoms.
1886	60 F.	oz.	oz.	oz.						
Dec.							1 m of 1% nitroglycerine and 1 gr. co			
1	1.028	95	100	3.846	1.752	None.	deia.	Gluten, no milk.		
2	1.0278	60	70	2.692	1.423	"	"	"		Cramp during night.
3	1.024	43	46	0.40	1.288	"	"	"		"
4	1.035	50	53	0.60	1.171	"	"	"		"
5	1.0195	50	61	1.053	0.966	Strong.	"	"		No sleep and pain inside and back.
6	1.023	44	56	1.166	0.9367	"	"	"		"
7	1.0245	57	60	1.156	1.212	"	"	"		"
8	1.0195	58	60	0.577	1.003	Still m're	"	with 15 grs am. cl.	"	Pain worse.
9	1.028	54	40	1.000	0.862	"	"	"	"	"
10	1.026	64	63	2.423	1.053	"	"	with 20grs. Na. Br.	"	
11	1.027	80	90	2.314	1.212	Strong.	"	"	"	Pain less, cold perspiration.
12	1.0288	69	81	3.374	1.288	Faint.	"	"	"	"
13	1.029	53	70	2.916	0.528	"	"	"	"	Pain gone.
14	1.029	85	90	3.749	1.212	None.	"	"	"	
15	1.027	70	100	5.55	0.970	"	"	"	"	
16	1.026	80	108	4.914	1.10	"	"	"	"	Sleep good.
17	1.0285	46	58	3.219	0.86	Faint.	1m of 1% nitro-glycer. t.d. & a little milk			
18	1.031	60	90	4.995	1.115	"	1m and two half minims		"	Pain in back again.
19	1.031	66	88	4.884	0.973	"	"	1 tea " chloric ether	"	Pain worse.
20	1.035	50	56	2.800	0.906	"	"		"	"
21	1.032	56	80	4.208	1.167	"	"		"	"
22	1.028	39	64	1.645	1.104	Stronger.	"		"	Pain better.
23	1.033	50	52	2.6	0.803	"	3 x ½m doses nitro-glycer.		"	No pain; weak.
24	1.032	54	70	3.5	1.094	"	"		"	"
25	1.031	40	62	2.384	0.819	"	2x½m doses & 1m dose.	Biscuit & ale		"
26	1.031	90	144	7.992	1.164	None.	"		"	"
27	1.031	60	82	4.10	0.973	"	"	Diet strict.		"
28	1.033	40	56	2.667	0.996	Faint.	"		"	"
29	1.034	58	72	3.6	1.307	"	"		"	"
30	1.0335	43	60	2.730	0.970	Stronger.	"		"	"
31	1.032	60	80	3.809	1.161	"	"		"	Feels stronger.
				92.926						

Note rise of sugar on 29th after starch food and ale.

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Jan.										
1	1.035	70	80	4.00	1.208	Faint.	No medicine.	Diet not strict.		
2	1.033	25	30	0.872	0.728	None.	"	"		
3	1.032	75	102	2.623	1.100	"	"	"		
4	1.035	56	82	4.313	1.061	Faint.	"	"		Cramp at night.
5	1.034	50	80	4.44	1.078	"	2m nitro-glycerine p. day	"		Acid vomiting all night.
6	1.038	54	50	2.50	0.943	"	"	Diet strict.		Legs heavy and tired.
7	1.033	43	52	2.261	0.953	Strong.	"	"		"
8	1.031	62	70	3.50	0.800	Faint.	"	"		"
9	1.032	64	94	4.997	0.801	None.	"	"		"
10	1.033	62	85	4.25	0.008	"	"	"		"
11	1.032	68	90	4.995	1.164	"	"	Diet not strict.		"
12	1.035	38	42	1.554	0.974	"	"	"		"
13	1.0315	30	42	1.104	0.906	Faint.	"	"		" cold sweat.
14	1.032	42	54	1.690	1.193	None.	"	"		"
15	1.0315	48	78	3.549	1.323	"	"	"		"
16	1.035	50	70	3.885	1.132	"	"	"		"
17	1.030	48	60	3.996	0.936	"	"	"		"
18	1.034	31	66	3.472	1.067	Faint.	"	Gluten and strict diet		"
19	1.030	40	60	3.528	0.702	"	"	"		Better nights.
20	1.035	74	75	3.085	1.011	Strong.	"	"		"
21	1.033	56	60	3.156	0.905	"	"	"		"
22	1.033	64	76	3.8	1.515	Faint.	"	"		"
23	1.031	98	101	5.05	1.307	None.	"	"		"
24	1.032	36	47	2.238	0.766	"	None.	"		"
25	1.0355	54	66	3.880	1.067	Faint.	"	"		"
26	1.0315	62	66	2.749	1.103	"	"	"		"
27	1.0328	54	60	2.857	1.03	"	"	"		"
28	1.0332	64	68	3.40	1.45	"	A 1m dose	"		"
29	1.035	49	65	3.6075	1.052	"	Two 1m doses.	"		Vision slightly affected.
30	1.037	51	60	2.857	1.07	"	"	"		"
31	1.0325	73	76	3.8	1.25	"	"	"		"
				102.082						

Date.	Sp. Gr.	Drink taken.	Urine	Sugar for 24 hours.	Urea for 24 hours.	Aceto Acetic Reaction.	Medicine.	Symptoms.
1887 Feb.	60 F.	oz.	oz.					
1	1.035	48	50	2.775	0.892	None.	Iron and strychnia. Gluten Food.	Eyes better and feels well
2	1.0335	45	60	2.73	1.132	"	" "	"
3	1.035	55	80	4.44	1.121	"	" "	"
4	1.05	62	61	3.385	1.185	"	" "	"
5	1.046	54	46	2.03	1.147	"	" " 1 oz. br'd	"
6	1.034	79	80	4.00	1.104	"	" " " "	"
7	1.031	88	80	4.208	1.037	"	" " no bread	"
8	1.034	111	120	6.312	1.106	"	" "	"
9	1.035	70	74	4.351	1.037	"	" "	"
10	1.0305	86	72	3.744	1.009	"	" "	"
11	1.033	74	86	4.032	1.159	"	" + 1m nitro glyc. "	Very tired, legs heavy.
12	1.034	82	110	6.15	1.200	"	" " "	" "
13	1.036	76	81	3.302	1.157	"	" 3m "	" "
14	1.035	118	132	6.204	0.818	"	" "	" "
15	1.031	75	82	2.788	1.105	"	" "	" "
16	1.033	54	60	2.64	0.873	"	" "	Better "
17	1.035	50	54	2.808	0.815	"	" "	" "
18	1.034	56	60	2.640	0.911	"	" "	" "
19	1.035	54	56	2.52	0.785	"	" "	" "
20	1.032	83	98	4.512	1.135	"	10 grs. Jumbol, 1m nitro. gl. "	Very heavy and dull.
21	1.035	56	61	2.562	0.75	"	15 grs. " only "	"
22	1.035	62	78	3.276	0.967	"	30 grs. " " "	Which got worse to end of month.
23	1.033	70	91	4.50	1.164	"	" "	
24	1.034	46	58	2.262	0.770	"	" "	
25	1.033	44	63	2.205	0.815	"	" "	
26	1.032	64	81	3.402	1.571	"	" "	
27	1.0335	50	74	3.108	0.958	"	" "	
28	1.0337	62	74	3.996	0.838	"	" "	Eyes weak again.
				100.945				

Sugar increased again by small quantity of bread taken on 5th and 6th. Gluten food alone become very disagreeable, and nothing suitable to be obtained; almonds and nuts disliked and therefore indigestible. The Jumbol was found to be inert as the seeds were old and worm-eaten.

1887 Mch								
1	1.0336	76	101	4.494	0.813	None.	1m of 1% Nitrog. Gluten Food all the	Pains in legs.
2	1.031	40	52	1.456	1.29	"	1m Ng. and 2 doses Iron. month.	"
3	1.034	50	48	1.44	1.09	"	2m " " 1 "	Better.
4	1.0336	55	67	2.412	1.41	"	1m " " 2 "	"
5	1.031	66	73	2.482	1.77	"	" "	"
6	1.033	65	60	2.10	1.23	"	2 " " 1 "	"
7	1.0335	60	70	2.95	1.358	"	"	Still improving.
8	1.031	51	50	2.10	1.05	"	"	"
9	1.0342	45	48	1.68	1.081	"	2 and 1 dose Iron and Strych.	"
10	1.032	63	78	3.465	1.412	"	"	"
11	1.0315	45	60	2.10	1.261	"	"	Eyes better and feels quite well.
12	1.034	58	63	2.772	1.155	Strong.	"	"
13	1.0355	60	76	3.496	1.27	None.	"	"
14	1.037	55	60	3.038	1.053	Strong.	"	"
15	1.0365	53	51	2.397	1.004	"	"	"
16	1.035	53	68	2.970	1.1	Faint.	"	"
17	1.0349	62	57	2.494	1.032	Strong.	"	"
18	1.0338	56	60	2.46	1.07	"	No Ng., 1 dose Iron and Strych.	"
19	1.032	62	76	3.306	1.213	Alm. n'ne	"	"
20	1.036	48	56	2.295	1.072	"	1m Ng. only.	"
21	1.037	54	56	2.688	1.146	"	"	"
22	1.0315	71	87	3.4375	0.586	None.	"	"
23	1.035	42	45	1.665	0.946	"	"	"
24	1.035	54	60	2.28	1.229	"	"	"
25	1.035	57	68	1.768	1.32	"	"	"
26	1.0352	58	70	3.15	1.19	"	"	Legs heavy.
27	1.045	65	60	2.28	1.067	Strong.	"	"
28	1.0352	52	48	1.776	1.00	"	" and 1 dose Iron and Strych	Cramps at night.
29	1.034	70	71	2.982	1.224	"	"	"
30	1.028	56	60	1.62	1.02	"	"	Cramps gone, feels stronger.
31	1.0317	64	62	2.048	1.07	"	"	"
				77.5495				

Date.	Sp. Gr.	Drink taken.	Urine	Sugar for 24 hours.	Urea for 24 hours.	Aceto Acetic Reaction.	Medicine.	Symptoms.
1887	60 F.	oz.	oz.	oz.				
April								
1	1.036	67	66	3.036	1.21	Faint.	1m Nitro-gl. and 1 dose Iron and Strych. Gluten Food all month.	Cramp.
2	1.0335	74	70	2.94	1.32	Strong.	"	"
3	1.035	80	72	3.312	1.35	"	"	Better.
4	1.035	80	78	3.424	1.33	None.	"	"
5	1.034	55	50	2.05	1.00	"	No medicine.	"
6	1.0353	48	46	1.794	0.915	Faint.	"	"
7	1.0341	64	68	2.584	1.33	"	"	Cramp again.
8	1.033	70	72	2.736	1.27	"	"	"
9	1.035	60	58	2.203	1.03	"	"	"
10	1.034	72	68	2.176	1.10	"	Continued as on 1st.	"
11	1.035	52	48	1.824	1.01	"	"	"
12	1.035	60	56	2.632	1.12	Strong.	"	Better.
13	1.037	43	41	1.886	0.84	"	"	"
14	1.033	59	58	2.262	1.00	"	No medicine.	"
15	1.035	62	60	3.36	1.14	"	"	"
16	1.032	44	42	2.35	1.02	"	"	"
17	1.032	76	74	3.99	1.01	"	"	"
18	1.032	54	52	2.75	0.953	"	½m. Nitro-glycerine.	"
19	1.032	62	60	3.105	1.26	"	"	"
20	1.031	69	74	3.815	1.21	"	"	"
21	1.031	80	63	3.257	1.43	V. strong	" and 1 dose Iron & Strych.	"
22	1.029	77	76	3.382	1.40	"	" "	"
23	1.027	70	74	3.663	1.07	"	"	Well to end of month.
24	1.027	77	74	2.826	1.10	"	"	
25	1.028	72	75	3.7125	1.06	"	"	
26	1.030	70	62	2.79	1.153	"	"	
27	1.030	56	52	2.691	1.12	"	"	
28	1.034	56	58	3.00	1.125	"	"	
29	1.033	70	66	4.158	1.121	"	5 grs. Jumbul.	
30	1.029	60	57	2.565	1.002	"	15 grs. "	
				85.2735				
1887								
May								
1	1.029	65	70	3.06	1.43	Strong.	15 grs. Jumbul. Gluten Food all the month.	Feels well.
2	1.034	49	40	2.25	0.835	"	"	
3	1.034	63	58	3.523	1.22	"	"	
4	1.034	59	50	3.15	0.943	None.	"	
5	1.033	70	57	3.69	1.26	"	"	
6	1.034	55	57	3.84	1.11	"	"	
7	1.033	65	59	3.18	1.04	"	"	
8	1.032	58	57	2.95	1.07	"	"	
9	1.032	53	58	3.26	1.56	"	"	
10	1.031	53	30	0.945	0.566	"	No medicine. Onions.	Very well to end of month.
11	1.028	44	40	1.35	0.755	"	" "	
12	1.028	40	38	1.06	1.01	"	" "	
13	1.025	35	39	1.05	1.00	"	" Apples and oranges.	
14	1.025	44	52	1.22	1.001	"	" "	
15	1.027	65	70	2.835	1.24	"	" "	
16	1.031	47	52	2.34	1.121	"	" "	
17	1.032	55	54	2.187	1.05	"	"	
18	1.030	57	60	3.375	1.03	"	2 doses Jumbul (15 grs. ea.)	
19	1.032	59	64	4.212	1.072	"	"	
20	1.030	39	42	1.795	0.9	"	3 "	
21	1.031	56	60	3.105	1.07	"	" One orange.	
22	1.031	72	66	3.564	1.08	"	No medicine.	
23	1.030	54	48	1.809	0.84	"	3 doses Jumbul.	
24	1.032	71	54	3.24		"	"	
25	1.032	76	56	2.898		"	"	
26	1.032	60	42	1.2285		"	"	
27	1.030	60	44	1.482		"	"	
28	1.025	52	50	1.52		"	"	
29	1.027	56	68	2.601		"	No medicine.	
30	1.027	50	64	2.304		"	"	
31	1.025	50	50	1.4625		"	" about 1 oz. of bread.	
				76.790				

This determination interrupted.

Date.	Sp. Gr.	Drink taken.	Urine	Sugar for 24 hours.	Urea for 24 hours.	Aceto Acetic Reaction.	Medicine		Symptoms.
1887	60 F.	oz.	oz.	oz.					
June									
1	1.030	94	90	6.277	.....	.....	No medicine	Ice cream a little.	Well.
2	1.029	61	60	2.835	.....	.....			"
3	1.031	46	36	1.458	.....	.....		Saccharine food and fruit.	"
4	1.033	40	56	3.15	.....	.....			"
5	1.033	40	46	2.898	.....	.....			"
6	1.033	42	39	2.34	0.69	None.			"
7	1.030	46	44	1.287	0.55	"			"
8	1.028	42	44	2.178	0.57	"			"
9	1.029	37	35	1.338	0.7	"			"
10	1.029	44	34	0.9945	0.7	"			"
11	1.030	37	38	1.196	0.74	"			"
12	1.034	36	42	0.945	0.71	"			"
13	1.034	56	54	3.645	0.84	"			"
14	1.032	46	42	1.512	1.02	"			"
15	1.027	48	50	1.687	1.45	"			"
16	1.031	49	42	1.512	1.2	"			"
17	1.030	48	40	1.35	1.01	"			"
18	1.0255	52	52	1.17	1.32	"			"
19	1.026	42	38	1.026	1.044	"			"
20	1.025	36	42	1.228	1.177	V. faint.			"
21	1.028	29	38	0.795	1.069	None.			"
22	1.027	42	40	1.17	1.207	"			"
23	1.024	44	42	1.174	1.34	"			"
24	1.025	42	46	0.824	1.19	"			"
25	1.025	46	40	0.45	1.00	"			"
26	.....	....	....	.....	Not continued further	"			"
27	.....	35	43	0.262		"			"
28	.....	....	50	2.475		"		Fruit.	"
29	.....	46	42	2.36		"		"	Pain and bad cramps.
30	1.031	40	30	0.607		"		"	
				50.1085					

Sugar increases 4·8 oz. after 1 oz. bread taken on the last day of May.

1887									
July									
1	1.032	40	36	0.648	.....	.....		Strict diet.	Bad cramps at night.
2	1.028	36	30	0.4725	.....	.....	Iron and Strychnine.		"
3	1.031	26	30	0.4725	.....	.....	"		"
4	1.027	40	38	1.111	.....	.....	"		"
5	1.032	44	42	1.4175	.....	.....	"		"
6	1.032	46	40	1.62	.....	.....	"		"
7	1.032	49	42	2.173	.....	.....	"		"
8	1.027	40	34	0.765		.....	"		Better.
9	1.031	70	60	2.16	.....	.....	"		"
10	1.023	56	42	0.378	.....	.....	"		Cramp gone.
11	1.022	48	52	0.468	.....	.....	"		
12	1.025	52	50	0.562		.....	"		
13	1.024	38	42	0.525	.....	.....	"		
14	1.022	70	60	0.429	.....	.....	"		
15	1.022	40	32	0.228	.....	.....	"		
16	1.021	52	50	0.562	.....	.....	"	Fruit.	
17	1.024	53	60	1.215	.....	.....	"	"	
18	1.029	35	60	2.7	.....	.....	None.	"	
19	1.023	15	40	0.63	.....	.....	Continued.	"	
20	1.028	40	44	1.218	.....	.....	"		
21	1.027	49	36	0.555	.....	.....	"		
22	1.022	26	60	0.81	.....	.....	"	Cucumbers.	
23	1.020	40	40	0	.....	.....	None.		
24	1.023	39	34	0	.....	.....	"		
25	1.023	40	36	0	.....	.....	"		
26	1.020	42	36	0	.....	.....	"		
27	1.022	40	32	0	.....	.....	"		
				21.1195					

AN EVERY DAY CASE, TREATED BY ELECTRICITY.

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Mrs. P., æt. 50, 26 years married, had 8 boys, 8 girls, and 4 miscarriages; came under my care for her womb, two years ago. I confined her, however, of her 16th living child 6 years ago, since which she has not had any more. She was attended 12 years ago by the late Dr. Schmidt for complete procidentia, her womb at that time hanging between her legs, and sticking to her clothes. He gave her some internal treatment, from which she derived great benefit. After her fifteenth confinement, however, her womb came down as bad as ever, and she was treated by Dr. Thompson, who after a month succeeded in healing the ulcers and getting the womb to remain inside the vulva, more or less, for it always came down after exertion, about one or two inches.

When she came to me in Feb., '86, I took down the following notes: Previous history; always healthy before marriage and since, except that she menstruated every two or three weeks, and even during pregnancy, until within three months of delivery.

Present condition: bilateral laceration of the cervix, with cystic cervical glands; lacerated perineum almost to the sphincter and procidentia of the uterus about two inches; and the sound enters a little more than 4 inches.

Treatment during the next two months. As she declined any operative measures whatever, I applied iodized phenol to the cervical canal and glycerine of tannin tampons to the vaginal vault, with the result that she menstruated only every 4 weeks, and without pain, and she felt lighter and better in every way. When I returned from Europe in Sept., 1887, she came to me again; owing to the very hot summer she was feeling very miserable; the vulva was very swollen and full of large veins, there was a cystocele and rectocele, and the uterus protruded from the vulva almost as much as when I first attended her. The sound entered four and a half inches.

I at once began the use of the secondary faradic current, through the coarse short wire, applied with Apostoli's vaginal bipolar excitor; this had a very marked effect; the vaginal muscular tissue and the muscles of the ligaments of the uterus, being put into such a state of contraction that the instrument could be felt to be grasped firmly and drawn upwards. After the first application the uterus remained up for two hours. I continued to apply the faradic current of quantity to the vagina during 10 minutes at intervals of two days, and after each time the prolapsed organ remained up longer and longer, until at the end of a month it did not come down at all. She now felt very much relieved, and more able to do her work; still I was not satisfied, because she yet complained of a tired feeling at the bottom of her body when she remained many hours standing; on reflection this was easy to understand, I had strengthened the supports without, however, diminishing the weight to be supported. The four and a half inches to which the sound penetrated represented a weight at least double that of the normal organ, and although they were able to hold it up for a considerable time, they would at last become tired out and let it fall. On the 23rd of Sept., I began to apply the constant galvanic current, 60 milliamperes for 10 minutes, to the interior of the womb, by means of the platinum sound, and continued to repeat it every 4 or 5 days between the menstrual periods. Menstruation, which by the tampon and hot water treatment had been reduced to three days, with intervals of four weeks, in May, had gradually gone back to 8 days in the following Sept. But after 10 positive galvano cauterizations, her period in Nov. only lasted 3 days.

She came to my office a few days ago to report herself, as I had requested, and stated that her last period (Jan., 1888) only lasted 2 days, and she was feeling better than she ever felt in her life, and that those clay plasters (as she called them) had done her more good than all the other remedies put together. She certainly looks now ten or fifteen years less than her age.

Conclusions: this is just one of a class of cases that come to our office every day, and which give us a great deal of trouble and very unsatisfactory results. Most often they decline to be operated upon, and the time honored pessary will not only not hold the uterus up, but it will not even hold itself in. For such the electrical treatment is the most rational one, for without cutting away any part of any organ, it restores to the supports their lost function, and removes from the uterus its morbid pertrophy, merely by increasing the vitality ofhe the trophic nerves, and thereby calling back into the circulation the morbid material deposited in the midst of the normal tissues. In cases where there is no hypertrophy, the faradic current of quantity

alone would suffice to restore the organ to its normal position (as I have witnessed many times in my office), but in other cases it is absolutely necessary to restore the uterus to its normal size and weight first.

Another remarkable thing in this case which I have noticed in nearly all the others, is the decided feeling of well being after the constant current, and also the tonic effect it has upon the bowels. With this remedy then at our disposal we need no longer dread the arrival of these cases at our office, for instead of being an opprobrium to our skill, the treatment of each one of them becomes a triumph.

Society Proceedings.

MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

Stated Meeting, October 28th, 1887.

JAS. PERRIGO, M.D., PRESIDENT, IN THE CHAIR.

PATHOLOGICAL SPECIMENS.

Parasitic Onychia.—Dr. JOHNSTON exhibited (1) a microscopic section of a nail showing parasitic onychia. The specimen was sent him by Dr. Bell who hah believed the case to be of this nature. The chains of trichophyton were seen in moderate numbers in the deeper layer of the nail and between the nail and its bed, though a mass of dry porous tissue formed over the bed of the nail was free from the parasite.

Dr. BELL gave the following history of the case: Miss E , aged 20, in scraping the back of her thumb nail about a year ago, cut through it about the middle. A light brown spot developed at this point and gradually extended to its free margin, and then began to grow backwards towards the cicatrix. It was painless. When seen the anterior two-thirds of the nail was dull and dry-looking, yellowish-brown in color, and raised from its bed at the free anterior margin to the extent of nearly half an inch. The tissue between the nail and its bed, at the margin, was quite dry and cancellated, resembling the cancellated structure of a dry bone. The nail was removed by sitting down the centre and removing the two portions separately. This cancellated structure was separated from the nail-bed by a thin fibrous layer, beneath which the nail-bed was absorbed. Owing to its peculiar appearance the nail was macerated and sections cut through the diseased part. On examination, there showed in considerable quantities the mycelium and sporse of the trichophyton, resembling the fungous as seen in tinea circinata rather than as usually seen in T. tonsurans. There was no history of tinea on this patient's skin, nor, as far as she knew, on other members of her family.

Broncho-Pneumonia.—(2) A microscopic section through the lung of a sheep in a case of broncho-pneumonia, where great numbers of the embryos of strongylus filaria were found in the alveoli, which were filled with exudation, and there was severe bronchitis and peribronchitis of the smaller tubes. The adult forms were not found within the bronchi, having probably been coughed up. The embryos are not able to develop beyond this stage in the lung.

Amputation of the Thigh.—Dr. BELL exhibited a patient whose thigh had been amputated for periosteal sarcoma. (The specimen was exhibited at the last meeting.) This patient was 18 years of age, and at the time of operation was in a very bad condition. His temperature ranged from 100°F. to 103½°F., his pulse from 120 to 140 per minute, and he was greatly emaciated. Amputation was performed by the circular method, about two inches below the base of the trochanter major, on the 3rd of October, and from that time his condition improved with extraordinary rapidity. His temperature remained steadily at 98½°, and he rapidly regained flesh. The dressing was changed once only on the eight day, and finally removed on the twenty-fourth day after operation, when the stump was soundly and perfectly healed.

Osteotomy for Bow-legs.—A child 3½ years of age was shown to the Society, on whom Dr. Bell had performed double osteotomy. The condition was the result of rickets, from which the child had perfectly recovered. The operation had been done by MacEwen's method, and had resulted very favorably. Photographs were shown of the child's legs before operation.

Discussion.—Dr. RODDICK referred to the good results obtained by Dr. Bell using bone drains. His experience with this mode of draining was not so favorable, as he found that the bone drains were too rapidly absorbed. While he congratulated Dr. Bell on the excellent results obtained in his operation for bow-legs, yet he could not agree with the necessity for the operation. Dr. MacEwen, who introduced the operation, does not recommend its application in patients under 9 years. He (Dr.

Roddick) had obtained quite as good results from the use of mechanical contivances in children even older than the patient. He thought that in most cases subcutaneous fracture is to be preferred to osteotomy as it is a less serious operation, and offers less risk. While opposed to operations in most of these case of deformity he thought it was more often called for in knock-knees than in bow-leg, as the former requires much longer and more painful treatment.

Dr. SHEPHERD said that in one of the few times he had used bone drains he found patient's temperature had risen and the drain plugged with a clot. He always prefers using rubber drains, which he cuts down to three-quarters of an inch at end of twenty-four hours. In Germany the "single dressing" mania often results disastrously to the patient. In German hospitals he was frequently shown single dressing-cases where the temperature chart indicated an unhealthy condition of the wound. He had seen Dr. Bell's patient before operation, and could heartily congratulate him on the success of his operation. With regard to the osteotomy case, he referred to the erroneous but common opinion that all cases of bow-legs results from rickets. The peculiarity, is often hereditary, and is quite normal in many of the anthropoid apes.

Dr. ARMSTRONG referred to Dr. Lewis' system of drainage. He used solid rubber strings placed side by side, instead of tubes, thus obviating the danger of plugging.

Dr. GURD said he had seen very good results from treatment ofbow-legs by improving the general health. He had great faith in the efficacy of good hygienic surroundings and the use of tonics in such cases. Instruments have proved unsatisfactory.

Dr. BELL, in reply, stated that the drains used were made from chicken bones, by the method recommended by Dr. MacEwen of Glasgow. These could be obtained as hard or as soft as desired. In the case of osteotomy, the curve in the child's legs was greatest just above the maleolus, so it could not by treated by subcutaneous fracture.

Notes on Acetanilide.—Dr. MCCONNELL first briefly stated what was known about acetanilide or antifebrine up to the present time. It was procured from aniline acetate., is a white powder resembling santonin, insoluble in water, but soluble in alcohol. It is neither alkaline nor acid, and resists the majority of reagents. Belongs to the order *Phenylaeetamides*, quite different from the orders containing the majority of antipyretics, viz, the Phenols and Chinolins. Actions claimed for it are that it rapidly reduces the temperature in febrile states, without producing any untoward effects ; that it is also hypnotic and analgesic, being especially useful in relieving pain linked with nerve alterations. In poisonous doses it will destroy oxyhæmoglobin, changing it into methæmoglobin. It is inexpensive, being only 10 frances per 1 kilogramme in France. Had used it in about 20 cases 16 of which he had records of—9 were cases of typhod fever—in all of which the temperature was promptly reduced. The following case may be regarded as typical of its action in this disease :

Girl aged 9 ; Oct 25th was seventh day of fever at 5 P.M.,five grs. acetanilide were given, when pulse was 120, respirations 28, and temperature $105\frac{2}{5}$°

5. 00 p.m.—Pulse 120, resp. 28, temp. $105\frac{2}{5}$°—Face and general surface pale, dry, and hot.

5.10 p.m.—Pulse 120, resp. 20, temp. 105°—Pink flush on both cheeks, pulse stronger.

5.20 p.m.—Pulse 120, resp 32, temp. $104\frac{3}{5}$°—Forehead, neck and trunk moist, and whole surface of Reddish hue ; somwhat more restless.

5. 30 p.m.—Pulse 112, resp. 32, temp. $103\frac{3}{5}$°—Has become tranquil and fallen asleep ; skin moist, no visible perspiration.

6.00 p.m.—Pulse 120, resp. 30, temp. $102\frac{2}{5}$°—Surface in same condition ; still sleeping.

6.30 p.m.—Pulse 108, resp. 24, temp. $100\frac{3}{5}$°

7.00 p.m.—Pulse 102, resp. 24, temp. 100°—Asked for a piece of bread.

7.30 p.m.—Pulse 102, resp. 24, temp. 100°

8.00 p.m.—Pulse 108, resp. 25, temp. $100\frac{3}{6}$°—Skin has become dry.

8.30 p.m.—Pulse 108, resp. 30, temp. 101°—Pulse diminished in volume and of less force.

9.00 p.m.—Pulse 112, resp. 30, temp $101\frac{2}{5}$°

9.30 " " 112, " 30, " $102\frac{2}{5}$°

10.00 " " 116, " 28, " $102\frac{1}{5}$°

10.30 " " 120, " 30, " $103\frac{1}{5}$°

11.00 " " 120, " 32, " 103°

1.20 a.m. " 120, " 30, " $103\frac{2}{5}$°

Oct. 26 ; 11 A.M.—Mother states child appeared to be very feverish from 12 to 8 A.M., and was restless and drank milk frequently. Six grs. were given to-day ; same effects observed, only there was more perspiration, and temperature became normal, remaining so for only an hour. Temperature subsequently rose on the 30th to 106°, and on the 31st to $106\frac{3}{5}$°, but was always reduced to about normal ; but the doses were

increased to 8 grs. Three and four doses were required in the 24 hours to keep the temperature at or about normal, child resting quietly after each dose and taking nourishment freely at present date, Nov. 7th. It would seem in this case that the temperature, after the effects of acetanilide had passed away, rose higher through its action.

Case 1.—Boy aged 12, typhoid; Oct, 20th, 1.30 P.M., ninth day of fever, pulse 120, temperature $104\frac{4}{5}$°; five grs. reduced temperature $98\frac{4}{5}$° in three hours. This dose acted in the same manner on the 21st and 22nd. Did not rise again above 102°, and gradually declined.

Case 2 has a similar record, and also Case 3.

Case 4.—Young lady, aged 29 years; mild typhoid, Sept. 11th, tenth day, has had troublesome headache since she became ill, and could not sleep during last two nights. Six grs. acetanilide were given at 10 P.M. Patient fell asleep in fifteen minutes and slept all night, and was free from pain when she awakened; it returned the two following days, but was slight.

Case 5.—Lad aged 12, typhoid. On March 28th, the 27th day of fever, temperature was $104\frac{3}{5}$° Six grs. acetanilide caused a profuse perspiration and slight cyanosis. Subsequently 4 grs. reduced the temperature below normal; 3 grs. was found to be a sufficient dose. After April 1st temperature gradually came down to normal.

Case 6.—Young lady, aged 19; mild typhoid. The severe headache was also promptly relieved by 6 grs. acetanilide; did not return.

Case 7.—Boy aged 9; double lobar pneumonia. June 13th, pulse 144, respirations 48, temperature $105\frac{2}{5}$°; 5 grs. acetanilide reduced temperature, to normal in three hours; in five hours after dose, pulse 120, temperature $100\frac{2}{5}$°, respirations 32. 14th, 1 P.M., pulse 140, respirations 44, temperature 106°; at 2 P.M., 5 grs. were given; at 5 P.M. temperature $97\frac{3}{5}$°, and at 9.30, pulse 132, temperature $102\frac{2}{5}$°, respirations 36. 16th, 5 grs. at 2 P.M. reduced temperature from 105 to $101\frac{2}{5}$° in three hours; 11 P.M., pulse 112, temperature $102\frac{4}{5}$°, respirations 56. 19th, 11 A.M., respirations 68, pulse 120, temperature $103\frac{2}{5}$. 20th, temperature normal.

Case 8, Septicæmia (Puerperal).—Patient aged 37, her first child. Forceps used and artificial extraction of placenta; antiseptic uterine douches were used and iodoform suppositories. Temperature was not high until the tenth, day 104°; on the eleventh day, 8 grs. acetailide reduced temperature to normal. Did not rise again above 102°; curette used on the thirteenth day; in two evening days after, temperature was normal, with slight exacerbations.

Case 9.—Young man, aged 23; pneumonia (double). On Oct. 16th, sixth day, pulse 120, respirations 64, temperature $103\frac{3}{5}$; 8 grs. reduced temperature, causing profuse perspiration. 17th, 1 P.M., temperature $102\frac{3}{5}$; 8 P.M., temperature $99\frac{3}{5}$°, pulse 90, respirations 36.

Case 11 has much the same record.

Case 12, Puerperal Septicæmia.—Patient confined in a house where there was a case of erysipelas in next room. All antiseptic precautions were observed, but next day temperature was $105\frac{1}{5}$°; uterine douches of corrosive sublimate, followed by carbolic acid and then iodoform suppositories were used; 8 grs. acetanilide brought temperature to normal, with profuse sweating. This dose was repeated on the two following days, after which there was no further elevation of remperature.

Case 13—Nervous headache, lady aged 28, had lasted two days; 5 grs. acetanilide gave complete relief in about two hours. Same results in two subsequent attacks.

Case 14.—Erysipelas.—Boy aged 15. Oct. 27th, noon, 7 grs. acetanilide were admiaistered; temperture was $104\frac{1}{5}$°. In three hours temperature was still 103°; 8 grs. were then given; in two hours temperature was 102°. 28th, 2.30 P.M., pulse 110, temperature 105°; 15 grs. acetanilide were given. In $3\frac{1}{2}$ hours temperature was 100°; in $4\frac{1}{2}$ hours after, respirations 20, temperature $99\frac{3}{5}$°; perspiration has ceased. For several days these large doses were required to keep temperature down; no fever Nov. 2nd.

Case 15.—Lady, aged 22; one day ill. Severe headache, general soreness, pains in back, anorexia, coated tongue, and temperature $104\frac{3}{5}$°; 8 grs. acetanilide at 10 p. m., purgative in morning. Went asleep shortly after taking powder. Temperature next day normal; no headache; feeling quite well.

In Case 9, typhoid, young man aged 23, half-hours record of temperature was kept on the two occasions when it was administered, with results similar to Case 1.

According to Wood, Macalister and others, fever is a disturbance of calorification in which, through the nervous system, heat production and

heat dissipation are both affected ; that there is a nervous centre which inhibits the production of heat and a thermogenic centre (located by Aronsohn and Sachs at the inner side of the carpus striatum), which excites increased tissue change ; that heat dissipation is regulated by the vaso-motor nerves ; that temperature is no indication of fever, as heat production may be normal, but elevation of temperature results from diminished heat loss, and we may have increased heat production (pyrexia) but, owing to increased heat loss, no elevation of temperature. Hyperpyrexia ensues when heat production is increased with diminished heat loss. Antipyretics act either by lessening the production of heat, as quinine, salicylic acid, and all cardiac depressants, or by increasing the loss of heat, as alcohol, sudorifics, cold, antipyrin. Acetanilide also belongs to the latter group. From the reports of these cases, we can gather that acetanilide in proper doses will, in the elevation of temperature of typhoid fever, pneumonia, erysipelas, septicæmia, and doubtless all febrile states, bring about a state of apyrexia, or a subnormal temperature if the dose is larger, in from two to four hours, the temperature beginning to fall usually in from ten to 15 minutes after its administration, instead of an hour as hitherto usually reported, the reduction ordinarily being five or six degrees, and may be over eight ; the pulse rate is lessened simultaneously with the fall of temperature and also the number of respirations. The dose varies from 6 to 15 grains for an adult, is easy of administration, and best given in wine or simple elixir. In an hour or two after the lowest temperature the dose produces is reached, it again begins to rise, and in four to eight hours may be as high as before the dose was taken, or it may not rise as high again for several days or even throughout the illness.

Idiosyncrasy or individual susceptibilty to the action of the drug varies considerably, and in cases where there is not any apparent evidence for anticipating dissimilar effects; disease also exercises a modifying influence, cases of erysipelas requiring larger than ordinary doses. Hence it is desirable to begin with small doses and increase, if necessary, until the quantity which will bring the temperature down to normal is learned. It first stimulates the vasomotor (constrictor) system, leading to increased arterial tension, quickly followed by dilatation of the cutaneous arterioles, thus permitting increased radiations or heat, perspiration immediately supervenes, and the temperature rapidly declines with lowered arterial tension.

It is an analgesic, giving speedy relief in neuralgic pain and headache, being especially serviceable in the headache present in the early stage of typhoid fever.

It is also a reliable hypnotic and nervous sedative in the sleeplessness and excitability of febrile states.

It doubtless in over doses, as evidenced by cyanosis, inhibits the respiratory functions of the blood probably as explained by so modifying the hæmoglobin that less oxygen is conveyed by the corpuscles and a state of internal asphyxia ensues, the diminished oxidation thus lessening heat production. It has no influence in shortening the course of zynotic affection ; hence in typhoid, would not consider its administration advisable unless the evening temperature was above 103, the the dose to be repeated in five or six hours, as necessary. No untoward effects result when proper doses are given, the patient's invariable statement being that they feel better, and in the state of apyrexia may experience hunger ; even in overdoses, the temporary cyanosis is quickly recovered from without and evil result.

Discussion.—Dr. PROUDFOOT had used acetanilide in painful affections of the eye, such as iritis and glaucomata, in doses of 10 to 15 grs. He found it reduce the temperature and relieve the pain almost instantly. If the pain was not relieved in one hour, he usually repeated the dose.

Dr. STEWART said he had very little experience in the use of the drug. He had, however, administered it in five-grain doses to relieve the lightning pains of locomoter ataxia, and found it very efficient. He regarded it as dangerous to give powerful drugs in fever cases to reduce the temperature, as these act on the oxyhæmoglobin, thus reducing the patient's powers of resistance.

Dr. REED stated that from Dr. Charcot's recommendation he had used it, but had not been able to relieve pain. He had found it reduce the temperature for a time, though not sufficiently to encourage him to continue its use.

Dr. PERRIGO said that the drug failed entirely in a case of malaria, in which he had tried it.

Dr. RODDICK congratulated Dr. McConnell on finding something to relieve the distressing headache of typhoid. He had given it in a case of erysipelas, but it had no effect on the temperature.

Dr. BLACKADER had also administered the drug in erysipelas with very little effect. The German authorities state that it is without effect in scarlet

fever and erysipelas. He thought, however, that the anodyne properties of the drug would keep it in the pharmacopœia.

In reply to remarks of Dr. Stewart that its action on oxyhæmoglobin was an objection to its use, Dr. McConnell said this only occurs to any appreciable extent when over-doses are taken. The antipyretic action is almost altogether exerted through the nervous system, and chiefly the vaso-motor. The want of effect in cases referred to by Drs. Reed and Perrigo was owing to its having been administered in too small doses.

Stated Meeting, Nov. 11th, 1887.

Wm. Gardner, M.D., 1st Vice-President, in the Chair.

Treatment of Ulcers after Thiersch's Method.—Dr. Bell read a paper on the treatment of ulcers by Thiersch's method of skin transplantation.

Discussion.—Dr. Hingston regarded the results obtained by Dr. Bell as highly satisfactory. He thought the greatest drawback to the method was the difficulty of obtaining these large pieces of skin sufficiently thin.

Dr. Roddick thought that this mode of treatment was an improvement on all others for certain kinds of ulcers. He did not think it was necessary to dissect out the ulcer; a fresh surface could be obtained by scraping. The first case shown was under his care in the hospital. He at one time held suspicions that it was a case of epithelioma; he intended, however, to have scraped out the ulcer and filled it up by skin-grafting.

Dr. Shepherd referred to some cases he had seen treated in this way in New York three years ago. Surgeons have been known to use the whole thickness of the skin.

Dr. Campbell said that many old methods are often forgotten in the search after new ones. He regarded the old method of strapping ulcers, known as Beyuton's method, as one of the best. This method and the treatment by blistering, though now largely supplanted by others, had formerly yielded him excellent results.

Dr. Bell, in replying, stated that he did not claim this method to be the best for all classes of ulcers, but did believe that it was applicable to ulcers that could not be healed by other methods. He always carefully removed all the diseased tissue before applying the skin-grafts, but did not think dissecting out every ulcer was necessary. He had dissected out the ulcer in the first case because he feared that deeper tissues were involved. He had seen successful cases in Germany where the deeper tissues had to be removed, and even pieces of bone chipped off before applying the new skin. The longest time taken by any of the ulcers to heal was thirty days; that was his first case. It was dressed on the fifth and thirteenth day; none of the other cases were dressed before the twenty-first day, when he invariably found the ulcer healed. This method possessed the great advantage of growing a good sound skin to the ulcer, and does not necessitate reducing the ulcer to a healthy condition before grafting.

Cystine Calculi.—Dr. Roddick exhibited several small cystine calculi passed per urethram. The patient is a delicate-looking man, 57 years of age; he gave a history of several attacks of renal colic, the first occurring three years since, followed by the passage of some fifty calculi varying in size from a pin's head to a pea. Lately the attacks have been less severe, and all have not been followed by passage of stones, but always gravel. Pain formerly equally severe over both kidneys, of late only over left. No hereditary history of stone of any kind.

Remarks.—Cystine calculi are exceedingly rare—less than one per cent. in European collections. Gross says he never met with it. The disease is common in dogs. Nearly all cases previously reported show hereditary history. This from of calculi always forms in the kidney, and is usually multiple. They have the appearance of beeswax, and soft enough to be compressed, as in the specimens exhibited, where from lying in contact either in the kidney pelvis or the prostatic urethra have become faceted. The majority of the stones passed in this case are coated over with uric acid.

Discussion.—Dr. Ruttan, after showing a slide of crystals of cystine under the microscope, demonstrated some of its chemical reactions. He also stated that this variety of calculi is not always soft when passed, as by remaining in the bladder for any length of time they may become coated with uric acid or phosphates. Some of the calculi shown are coated with uric acid; one calculus containing about 25 per cent. Owing to the peculiar constitution of cystine, it combines with and is soluble in either strong alkalies or acids, thus easily distinguished from uric acid. The

sulphur is readily detected either by boiling the powdered calculi in lead acetate and caustic potash, or by fusing with potash and adding a drop of nitro-prussiate of soda ; the purple color in the test is very marked. As no other calculus-forming substance contains sulphur, the detection of its presence in a calculus proves it to be cystine. Cystine was also found in marked quantity in the patient's urine.

Dr. REED referred to a fine specimen belonging to Dr. Fenwick, which had been removed by lihotomy. It was soft like wax while in the bladder. The appearance of the hexagonal crystals under the microscope resembles iodoform, and care must be taken not to confound the one with the other when this drug has been used in injections.

Case of Periosteal Sarcoma of Femur.—Dr. RODDICK gave the following history: The patient was a young man, a civil engineer by profession, 24 years of age, thin and anæmic. Distant family history of tubercle, but none of cancer or tumor of any kind. No history of syphilis. He was quite well up to July last, when he sustained slight injury to left knee, aggravated later by kneeling in canoe for several days paddling. The case looked at first like simple or rheumatic synovitis, and he was treated as such by blistering, etc. When he came under observation here the effusion was very great, causing severe pain from tension ; skin thickened and slightly œdematous, not like the smooth, glistening or white appearance of ordinary or strumous synovitis. Aspiration showed thin, bloody serum containing blood-clots and debris of tissue. Suspected sarcoma, and made exploratory incision.

Remarks.—Had patient's condition warranted, would have preferred amputation at hip, as I believe periosteum sarcoma more liable to recur owing to continuity of periosteum. Would be less afraid of recurrence in central or myeloid sarcoma. Patient was doing well at time of report, one week after operation.

Discussion.—Dr. HINGSTON said he could agree with Dr. Roddick in the unsatisfactory nature of an amputation in the continuity of the bone in periosteal sarcoma. He had formerly operated leaving a portion of the bone, but found he had almost invariably to operate again later to remove the rest of the bone. In his opinion, operation in the continuity of the bone is always unsatisfactory, while removal of the entire bone has given him the best of results.

Dr. SHEPHERD said that in his experience the disease generally reappeared in either form of operation, not in the stump, as a rule, but in some of the organs of the body.

Dr. BELL could recall many cases during his experience in the General Hospital, where the limb had been amputated in the continuity of the bone. In all these cases the disease had recurred in some of the internal organs. Cancer, in his opinion, does not spread by the periosteum, but through the lymphatic system.

Resection of the Intestine.—Dr. JAS. BELL showed a specimen from the following case:—B. D., aged 17, was admitted to hospital on the evening of the 8th of November, suffering from a strangulated inguinal hernia. The boy was a plumber by occupation, and had never had a hernia until Sunday, the 6th of November, two days prior to admission, when he complained of pain in the upper zone of the abdomen and noticed the swelling in the right scrotum. He took a dose of black draught, which produced in the night one small motion. Vomiting set in the following morning and continued until his admission to hospital. The patient was anæsthetized, and moderate taxes having failed, herniotomy was performed. The sac was opened and found to contain about ten inches of small intestine, very firmly strangulated in the whole length of the canal, which was enlarged, and the bowel drawn out and examined. It was very black, but glistening, and distended with air, and was consequently returned. The obstruction symptoms, however, remained unrelieved, and tympanitic distension of the abdomen developed gradually. The pulse and temperature, as well as the general symptoms, indicated peritonitis. Thirty-six hours after the herniotomy it was decided to open the abdomen and endeavor to relieve the obstruction. The abdomen was opened in the middle line. There was general peritonitis, and the intestines were hyperdistended with gas. The obstruction was found to be due to the collapsed and kinked condition of the portion of gut which had descended in the hernial sac. It was the lower portion of the ileum, and was quite gangrenous, lines of demarcation forming at the points where it had been constricted at the internal ring. The gangrenous bowel was excised with a triangular portion of mesentery, the operator cutting through the healthy bowel about half an inch beyond the forming line of demarcation at either end, the lower section being about three inches from the cæcal valve. The

distended intestines were punctured by hollow aspirating needles to evacuate the gas before they could be returned. After excision, the ends of the bowel were carefully united by silk sutures, the first six or eight being carried through the whole thickness of the wall of the gut at opposite points to secure accurate coaptation and then a continuous Lembert suture. The abdomen was washed out with warm water, a drainage tube left in the lower end of the wound, and a gauze dressing applied. The operation occupied one hour and a half, and the patient, who only partially rallied, died two hours after its completion.

Discussion.—Dr. SHEPHERD said that he regarded the so called lustre as a very deceptive characteristic of healthy intestine. The bowels of subjects in the dissecting-room show a well marked lustre.

Dr. RODDICK thought that the operation of the future would be to open the abdomen at once and thus obtain a good view of the affected intestine. This is the great difficulty of the ordinary method of operation. He had seen many worse cases than Dr. Bell's recover.

Dr. HINGSTON said his rule in strangulated hernia is to operate at once. He had been often astonished to see how quickly cases would recover where the hernial mass was quite black when returned to the abodmen. Removal of a piece of intestine is always a very serious operation. He made a practice to return the bowel in every case.

Specimen of Tubercular Cystitis.—Dr. JOHNSTON exhibited the bladder and kidneys of a tuberculous case occurring in the practice of Dr. Roddick. An unhealed fistula was shown opening into the urethra in front of the prostate; upon the walls of the fistula and about the base of bladder were a a few tubercles; the rest of the bladder was free from tubercles. The right ureter showed numerous patches of tubercular ulceration, and in right kidney two of the calices presented extensive caselous softening; left kindey and ureter free from tuberclei; acute miliary tubercular peritonitis and pleuritis; miliary tuberculosis and amyloid of liver, spleen and kidneys, commencing tubercular meningitis.

Dr. Johnston stated that he had examined a specimen of the patient's urine, sent him about a week before the death, and could find no bacilli. It had surprised him when on making the autopsy such extensive caseous softening of the pelvis of the right kidney was seen, as this usually yields enormous numbers of tubercle bacilli. Examination of the caseous masses in the kidney, however, in about twenty specimens he found no bacilli. A small number of bacilli were found in the ulcers in right ureter and in the walls of the fistula, and this should have shown the true nature of the case had a larger quantity of urine been examined.

Dr. BELL had the case under observation some time, and about a year since, suspecting either stone or tumor of the bladder, performed median lithotomy, but failed to find any foreign body. The perineal opening never closed, and it was to receive some relief for this that he was admitted to hospital under Dr. Roddick's care.

Dr. RODDICK stated that he attempted to close the perineal opening by a plastic operation, but this failed. The immediate cause of death was tubercular meningitis. He had a case at present in hospital where he had long suspected tubercular disease of the kidney, his suspicions being at length confirmed by the discovery of bacilli.

Dr. SHEPHERD said that Dr. Guion of Paris states that tuberculous affections of the trigone of the bladder or of the prostate is always characterized by symptoms closely resembling those of calculous, such as pain at the end of the penis and frequent micturition, the pain increased by movement, etc.

Dr. JOHNSON stated that in this case the oldest disease was near the prostatic portion of the bladder, and that there were caseous masses in each epididymus.

Saccharine.—Dr. REED made a few remarks on this remarkable substance, and passed around a specimen. It is obtained from TOLUENE, a coal-tar dirivative. The intense sweetness of the compound, two hundred and fifty times that of cane sugar, and its inertness, have made it useful in preparing anti-diabetic diets, and it is now being used with success. It is a white powder, sparingly soluble in water; half a grain is sufficient for sweetening a cup of tea or coffee. Even at its present price of seventy-five cents per ounce, it competes with sugar.

Stated Meeting November 25th, 1887.

DR. GUERIN, 2ND VICE-PRESIDENT, IN THE CHAIR.

New Members.—Drs. H. Perry and Lorne Campbell were elected members.

Multiple Onychia.—Dr. JAMES STEWART exhibited for Dr. R. J. B. Howard a case of multiple onychia occurring in a young man aged 18.

Some Questions suggested by the present Epidemic of Diphtheria in Montreal.—Dr. Armstrong then read a paper on this subject.

Discussion.—Dr. PROUDFOOT could thoroughly concur in what Dr. Armstrong had said with regard to the difficulty sometimes experienced in diagnosing a case of diphtheria from "follicular tonsillitis." He had seen cases where the tonsil was inflamed, and there was no membrane to be seen, but which subsequently developed a severe form of diphtheria. He thought, however, that where the glands of the neck were simultaneously inflamed, we might be pretty sure that the case was one of diphtheria. With regard to the recurrence of the disease in the same person, he was of opinion that a patient who had true diphtheria was seldom again atacked by the disease; he had never seen more than two or three cases of the kind.

Dr. MILLS thought that one of the most interesting and important questions in connection with diphtheria was the causation of the cardiac weakness and the lesions peculiar to the heart. Experimental examination of numerous animals had now made it clear that the vagus was all important to the nutritive processes of the heart. There were many clinical and pathological facts which supported the same view for man. It seemed doubtful if the poison of diphtheria injured the heart solely or chiefly by affecting the muscular tissue directly through the blood. Did the virus act directly on the nerve terminals or on the active centres of the cardiac nerves or other centres of distribution (sympathetic ganglia is case of accelerators)? Fatty degeneration of the cardiac tissue follows section of the vagi. May not the degenerations in diphtheria have also a nervous origin? It is important to determine this, as behind it lies the question in this and many other cases of cardiac disease of therapeutic treatment through the nerves of the heart or their centres. Dr. Mills thought the present time, when diphtheria was so prevalent, afforded a good opportunity to raise the question as to what action the Society should take in regard to some expression of opinion on the general sanitary condition of the city, with a view of calling more directly the attention of citizens to the subject, and if possible of rousing the civic authorities to take such steps as were called for by the gravity of the sanitary situation for some years past. It seemed to him that it was the privilege and duty of society, representing the English part of the profession at least, to enlighten and warn the public in regard to matters of such vital importance, and on which the Society was supposed to be specially competent to form opinions. Their warnings might not always be heeded, but they tended to form and strengthen enlightened public opinion; and, at all events, the question was not one of practical result but one of the duties of the more informed towards the less informed, and in not a few cases the infantile and helpless members of the community.

Dr. GEO. ROSS said: The only difficulty in dealing with the paper, which was of much interest at the present time, was the extensive ground covered by it; indeed any one or two of the important points raised would be sufficient to occupy the attention of the Society for an entire evening. The question of the accurate diagnosis of diphtheria was even yet a vexed and undecided one. Some eminent observers, notably a somewhat recent writer in New York, go so far as to say that there are more cases of diphtheria walking about than are to be found in bed; thus assuming that practically all those sore throats which most of us call exudative or follicular tonsillitis are really of a specific and infectious nature. He cannot agree to this. An immense amount of clinical evidence might be adduced against the supposition. It is true that occasionally a genuine diphtheritic exudation is seen occupying the crypts of the tonsils, and showing as small and circumscribed yellow patches upon the faces of these two organs, but this occurrence is very rare in his experience. A recent case in hospital practice exemplified the condition where the duration and the fact of its occurring in a family, where three other members were simultaneously suffering from rather severe diphtheria, conclusively demonstrated its specific character. As regards nasal diphtheria, this form is generally and with much justice looked upon with alarm, the situation affected being thought to add considerably to the risk of septic infection of the system. In cases of moderate severity, when the nasal passages are secondarily involved, this would certainly appear to be the case, but in at any rate some of the cases of primary nasal diphtheria, the course of the disease is remarkably subacute and of mild form, without any danger to life. This fact is sometimes lost sight of by practitioners, and children thus affected are supposed to be suffering from common coryza, often with disastrous results in the family. During the epidemic prevalence of

diphtheria, in all cases of apparent catarrhal fever, the nasal fossæ should be carefully examined for membrane. It is seldom that this cannot be readily seen, if present. With reference to Dr. Armstrong's question as to the causation of urinary suppression, he was of opinion that in some cases this was the result of organic changes in the kidneys, other phenomena being quite secondary to this; whereas in a second class of cases, the primary effect was upon the nervous mechanism of the heart, disturbing its regularity and lowering the force of its contractions, the partial or complete suppression following from diminution of blood-pressure. As intubation of the larynx was a novel procedure here, Dr. R. would like to mention his experience of three cases (further details would be furnished by Dr. Major who operated). No. 1 was first seen on the eighth day of illness—a boy 5 years of age, was cyanotic, intensely distressed, and rapidly asphyxiating. Tube in larynx gave instant relief. He died ten days later from gradual heart failure, but air entered lungs freely. No. 2, girl of 5—too small a tube introduced was soon coughed out, followed by expulsion of complete cast of larynx and upper trachea; immediate relief and complete recovery. No. 3, girl of 4 years, admitted to hospital after some days illness; very extensive, thick and foul membrane in fauces; very weak; soon had nephritis, and showed a marked septic state; a fatal prognosis given; but intense laryngeal dyspnœa came on; to relieve this, larynx was intubated, with immediate and complete relief to breathing for twelve hours before death. It remained, of course, for further experience to enable us to compare this procedure with the operation of tracheotomy. Dr. Ross said he was trying the local application of "papoid" in diphtheria. It was applied by means of a brush in five per cent. solution every half hour. In hospital he had treated 26 cases, many of them severe, and some of them very severe, also some mild. Of these, 13 were discharged well; 12 remained under treatment, but he thought, without doubt, would all recover; one only died. He was certainly favorably impressed with the action of the drug, but could not say more than this until extended observations had corrected or confirmed first impressions.

Dr. Cameron remarked that in his practice ear and nasal complications have been very common during the present epidemic. In some cases a chronic nasal discharge, more or less irritating in nature, persists for a considerable time. He raised the question whether such nasal discharges were infectious, whether there was any way of determining when they ceased to be infectious, and whether it was right to give a clean bill of health to a patient with chronic nasal discharge after diphtheria. He was inclined to consider these nasal discharges as always more or less dangerous. He then called attention to the lax and unsatisfactory manner in which the health officials deal with the infectious cases, which they now compel medical men to report to them. It is hard to say just where the fault lies, yet it is painfully evident that under present arrangements the reporting of infectious cases results in very little good. The public have a right to expect preventive measures, and are not satisfied with so called disinfection of premises and the compilation of statistics and reports. It seems as if aldermanic patronage lay at the root of the soil. Satisfactory administration of our health department can never be secured while health officials are blocked and thwarted in the fulfilment of their duty, and made to feel that their tenure of office depends upon their pliability.

Dr. Major strongly pronounced against the idea that lapse of time granted immunity from contagion in diphtheria. In the cases of persons in attendance on diphtheria, no specified time would be sufficient to destroy the germs. In so far as danger to others was concerned, such persons were as likely to convey the disease in three weeks after exposure as in three days. In proper disinfection alone could we look for safety. In persons afflicted with the disease, after all traces had disappeared, he considered a few days ought to be allowed to elapse, during which daily disinfection should be practised before allowing of contact with others. The question of the influence exerted by an unhealthy condition of the nose or throat in favoring the development of diphtheria is an important one. There can be but little doubt that a chronic state of hyperæmia, such as is so commonly met with, will increase the liability to diphtheria. In the case of a little girl, a patient of Dr. A. A. Brown, I excised a large tonsil, within a year afterwards this child contracted diphtheria. The duration of the illness was three weeks, and although the opposite tonsil and the surroundings of the ablated one were covered with membrane, the cicatricial surface remained free throughout the period of three weeks, during which membrane was present in quantity. The same observation was made recently in a case of syphilitic cicatrization of

pharynx, wherein the cicatricial tissue was wholly free from exudation. In the case of a child whose pharnyx had been injured by swallowing lye, the same absence of membrane on cicatricial tissue was remarked. All this goes to show that membrane is favored by an excessive circulation and *vice versâ*. In reply to Dr. J. C., Cameron's question, Dr. Major stated that in nasal diphtheria care should be taken that all discharge from the nose has ceased before a clean bill of health was granted. As Dr. George Ross had referred to "intubation of the larynx," and associated Dr. Major's name therewith, he would make a few remarks with reference to a few of his more recent cases. He wished it understood that tubage had been resorted to by him in cases where all possibility of saving life was out of the question, and had been undertaken merely as a means of allaying the suffering produced by strangulation.

D. T. L., aged 5 years, was seen in consultation with Dr. Browne on June 8th, at 5 A. M. The breathing was most difficult, and suffocation was impending. An O'Dwyer's tube was introduced with instantaneous relief. The tube was removed on June 11th, at 9 P. M., when the breathing seemed quite satisfactory; at mid-night of same day, however, it was necessary again to return it, as dyspnœa with marked retraction supervened. The tube was permanently withdrawn at 3 P. M. on June 17th. On laryngoscopic examination, a slight abrasion of left ventricular band was noticed.

The foregoing case was one of inflammatory croup, and developed as alarming symptoms of suffocation as I have ever seen.

T. J., aged 3 years, also a case of catarrhal croup, was seen with Dr. Browne at 2 A. M., Saturday, Oct. 29th. The patient was in a very critical condition, and it was with difficulty that the tube was introduced in time to prevent a fatal issue. On introduction, however, the breathing was immediately relieved, and continued good until the morning of Wednesday, Nov. 2nd. On Thursday, Nov. 3rd, at noon I removed the tube and found it filled up with some material which, on examination by Dr. Wyatt Johnston and Dr. Ruttan, proved to be starch granules, caseine, epithelial scales, etc. The breathing improved at once, and continued in a satisfactory condition.

J. C., aged 5 years, was a case of diphtheria with laryngeal extension. On examination of larynx with laryngoscope, membrane was found there in quantity. The difficulty in breathing was very great, when Dr. Geo. Ross requested intubation.

The tube was introduced at noon on Tuesday, Nov. 1st, it was removed at 3 P. M. on Sunday, Nov. 6th, but as dyspnœa became urgent it was reintroduced at 8 P. M. of same day. The child's breathing continued good until Thursday, Nov. 10th, when death resulted from sepsis.

On Sunday, Nov. 6th, Dr. George Ross desired that a child aged 6 years, suffering from diphtheria in the contagious wards of the Montreal General Hospital, should be intubated. As I was at the time possessed of but one set of O'Dwyer's instruments and tubes, I had not a tube suitable for the child's age, as it was already in use in the former case. On examining the larynx with the laryngoscope, I made sure that a smaller tube might be used with safety, as it would not pass into the trachea, although it probably would not be retained. The breathing was very much oppressed, and membrane was seen extending some way into the trachea. On intubating, the tube after a few minutes was coughed up, and with it a cast of the larynx and trachea. The breathing now became good, and recovery was rapid. This was only a fortunate accident attending the manipulation of tubing.

W. A., aged 18 months, was suffering from catarrhal croup, and was in a bad way on Monday, Nov. 14th, when Dr. R. P. Howard requested intubation. The tube was introduced at 3 p. m., and removed on Friday, Nov. 18th, at 1 p. m., when the necessity for a tube no longer existed. A good recovery resulted.

J. Q., aged 3 years, a patient of Dr. Guerin, was tubed Thursday, Nov. 17th, at 6 p. m. Pulmonary collapse was observed, and the tube removed on Sunday, Nov. 20th, at 6 p. m. The case terminated fatally the same night. The child was suffering from catarrhal croup; on examination of larynx, no membrane could be seen. The collapse probably antedated the tubage.

Hospital case, girl of 11½ years, suffering from a very malignant type of diphtheria, with excessive septic poisoning. The breathing was so very distressing that Dr. Geo. Ross requested intubation for its relief. The case was of an utterly hopeless nature. The tube was introduced at 9 p.m., Friday, Nov. 18th, and afforded instantaneous and marked relief. The child was enabled to lie down and sleep quietly, dying the following morning at 6 p. m., of sepsis.

Hospital case: J. C., aged 4 years, suffering from laryngeal diphtheria, was tubed at 4 a. m., Friday, Nov. 25th, and died at noon the day following. Probable cause of death extension of membrane into bronchi.

Intubation may be practised with one of two objects in view, viz., to save life or merely to relieve dyspnœa (when the saving of life is hopeless). Statistics endeavor to show the life-saving power as compared with tracheotomy, the comparison is certainly in favor of intubation. The measure of relief tubage affords in laryngeal stenosis from whatever cause, the readiness with which friends give consent, and the rapidity with which a tube can be inserted, are all points strong in favor of intubation. There are a number of conditions that should be well considered in tubing, and as one's experience extends the recognition of possible accidents increases. In tubing, if breathing is not satisfactorily restored within a few minutes, withdraw the tube, reintroduce it, and again withdraw it if necessary, reintroducing it; if the breathing is still imperfect, contemplate tracheotomy. The fear of forcing membrane down before the tube is one often urged, but is one of the accidents least likely to happen. Tubage does not interdict subsequent tracheotomy, and tubage is proportionately valuable, as it is performed early. Many cases of pulmonary collapse no doubt antedate the operation, and experience probably will prove that pulmonary collapse is one of the conditions most to be feared as likely to be attributed to the operation, and not to the state for the relief of which the intubation was undertaken.

Dr. REED suggested that the knee jerk be sought for in all cases, as involvement of the nervous system has been known to occur even when the throat trouble has been slight as to pass unheeded. According to Formad, bacteriology is insufficient to distinguish simple follicular tonsillitis from fatal cases, the same microbe having been found in both.

Dr. MCCONNELL stated that although the health department were not entitled to much credit for the part they have taken towards staying the present epidemic, yet, in view of the multiplicity of views held in regard to the etiology of the disease and its management, some allowance might be made for failure in making specific efforts towards its arrest if some of the ordinary sanitary requirements of the city were not so sadly neglected. He believed it to be a parasitic disease (Zoefler's bacillus, probably), and hence amenable to all means which are known to destroy them or prevent their development. If this view was more generally adopted, our management and treatment of these cases would have a more definite aim and be applied more intelligently. He thought it unfortunate that Jacobi, in a standard modern work like Pepper's, should not countenance this origin for diphtheria, as it explains satisfactorily the chief feature of the disease. From his observations he believed it to be at first a local disease; the growth in the mucous or abraded surface resembling perfectly culture tube-growths of bacillus, etc., precedes constitutional symptoms, and the latter disappear when the surfaces are free from the membrane. This was well seen in a child of 3 years now under treatment for the fourth attack; he had recovered from the third but four or five days. Pharynx clear and no fever, when he used a piece of gum that a sister, suffering from the disease, had been masticating; in five or six hours after a fresh patch appeared on the tonsil, and there was a return of pyrexia. Each of the other members of this family had had the disease twice, showing a family predisposition. He treated his cases with germicides, using acid sulphurous, boric acid, liq. ferri mur. internally, and corrosive chloride with atomizer, and the air of the room saturated with vapor from boiling water, on which was kept constantly a quantity of equal parts of carbolic acid and turpentine. If pathogenic bacilli were the cause to prevent their development, the remedy should be brought into contact with the rapidly-growing patch almost constantly, hence atomizer and internal mixture (whose action is chiefly local) should be alternated every fifteen minutes or half hour. This had given most satisfactory results. A case of laryngeal diphtheria had recovered under the use of Lq. Bichlor internally and the antiseptic inhalations already mentioned.

Dr. ARMSTRONG, in reply, said: I think it is generally agreed that a healthy nasal and pharyngeal mucous membrane is protective against the poison of diphtheria. Unfortunately, in our climate perfectly healthy noses and throats are not too commonly met with. The great objection to the idea of Prof. Hughlings Jackson mentioned by Prof. Mills is that ant. pol. myelitis is essentially an incurable disease, and the paralysis of diphtheria nearly always gets well. I am glad Dr. Ross still finds reason to hold the views he has expressed in regard to diagnosis. The cause I purposely

avoided in my paper. It is a large subject. The plumbing of Montreal is bad—very bad, and the Board of Health deserve the same qualifying adjectives. They are nearly useless. I am willing to do all in my power to improve things, but under the present regime at the City Hall I am afraid that all our efforts intelligently put forth would avail little or nothing.

Progress of Science.

KNEELING POSTURE IN PROTRACTED LABOR.

Dr. Edwin M. Hale, Chicago, in *Journal of Obstetric*:

Mrs. J., a short, fat woman; in her first labor, the progress was very slow and painful. The pains had lasted twenty-four hours before the os had dilated sufficient for the head to descend. But it did not descend, nor did progress beyond that stage, notwithstanding the use of the hot sitz bath the douche, caulophyllin and cimicifuga. I wasted six hours, the soft parts became hot and swollen, and the woman showed signs of severe exhaustion. The long forceps were applied, but my strength was not sufficient to move the head. I called on Dr. George A. Hall, who used another kind of forceps and succeeded, after nearly an hour of forcible traction, with the aid of an assistant. The perineum was badly ruptured; was sewed up immediately, and the patient made a good recovery.

Three years after, the same history was repeated.

Four years later the woman was again taken in labor. The os rapidly dilated, but the head became impacted at the same spot. It occurred to me to suggest to the patient to kneel down by the bed. After assuming this posture the pains immediately became more violent and expulsive. She did not have more than six or seven before; placing my hand on the perineum I found it was rapidly descending, another pain expelled the child. There was no rupture of the perineum; recovery rapid. If she had assumed this posture with her first labor, would the child have been born naturally?

I think not, owing to her peculiar physical conformation.

With the second child, the result of the keeling posture might have been successful. In a fourth labor she assumed the kneeling position, at about the same stage of labor, and the child was born before any physician could be procured. I have often seen protracted labors rapidly terminated by the same procedure.

One of the most plausible explanations of labor in the second stage is given by Lusk. "It is either due to exhausted nerve power, or excessive uterine retraction; in the latter case the withdrawal upward of the uterine muscle and the consequent lessening of the intrauterine pressure." He quotes Hofmeier, who reports a number of instances when the head rested on the pelvic floor, that the ring of Bande, which was made and by palpation through the abdominal parietes, was situated at from five to seven inches above the symphysis pubis, so that the contractile portion of the uterus covered not more than one-third of the fœtus. Under such circumstances, while the patient suffers from intense pain, the contractions of the partially emptied uterus do not possess the force to overcome the resistance of the rigid perineum. I have observed several instances of this kind, when the kneeling posture caused the retraction to give way.

But in the case of Mrs. J. and some others, this could not have been the condition present, unless the contraction with retraction of the uterus occurred at an earlier stage, for the head had not descended sufficiently to press on the perineum. While the presentation appeared normal, the head did not descend; there was no flexion. Perhaps this non-flexion was the cause of the arrest of labor. But why does the head not flex? I believe it is because the expulsive force is not applied in the proper direction. Nor can it be applied while the woman is in any other position than kneeling with the body bent forward. One peculiar symptom observed in these cases is, that the vagina, which, previous to arrest of labor, seemed open enough—soon after the descent of the head was arrested, appeared to "fill up," and the head actually seemed higher than before. This would imply that the so-called "tonic retraction" may occur before the head reaches the floor of the pelvis.

Patients delivered in this position usually kneel on a pillow, with the knees apart, and the arms upon a chair, bed or lap of an attendant. The physician takes his seat on a low ottoman on her left side, and placing his hand on the perineum, watches for the descent of the head. There is no fear of the

child being precipitated from a height with injury to itself or its mother. The space between the uterus and the pillow upon which the patient kneels is so small that the head of the fœtus is arrested before the whole of the body is expelled, and the average length of the funis is sufficient to preven it dragging down the placenta or uterus, even it the accoucheur did not attend to the taking of the child. The posture is strictly scientific, for when the woman is thus placed the outlet of the pelvis rests perpendicular and the greatest gravitory influence of the fœtal head is secured. More than this, the expulsive efforts of the woman can be exerted with far greater force and ease than in any other position.

As the trunk of the woman is bent forward, the propelling force of the abdominal muscles are exerted at a proper angle, to best insure flexion of the fœtus through the curve of the genital canal.

If accoucheurs will carefully consider the many mechanical reasons for the use of this position during the second stage of labor, they can not fail to be convinced of its utility. It certainly ought to be tried in all cases of lingering labor in the second stage before we resort to the forceps.

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QUACK ADVERTISEMENTS IN RELIGIOUS NEWSPAPERS.

We thoroughly endorse the following which appeared in the *Philadelphia Medical and Surgical Reporter* of Dec. 31st, 1887.

"From time to time medical men and medical journals have protested against the prostitution of the columns of religious newspapers to the use of advertisers of quack nostrums. This protest does not apply to temperately worded representations of what seems to have been accomplished by, or what may reasonably be expected of, a remedy or device for the cure of disease or injury. But it does apply to advertisements couched in language which bears the stamp of falsehood on its face, or which is of such a character as to arouse suspicion in the mind of an intelligent man, uninfluenced by a money consideration.

The editors of the most religious journals are, as a rule, men of so much intelligence that they will hardly attribute to trade-jealousy alone the objection which medical men have to the recommendations of "sure cures" for baldness, fits, rupture, consumption, and so on, to persons who are apt to regard their religious teachers as safe guides in matters of health or disease; and who are not sufficiently familiar with the subtleties of the newspaper business to distinguish between the responsibilities of the editor and those of the publisher. As a fact most readers of periodicals have the impression that the advertisements they contain are endorsed by the editor. Advertisers rely upon this fact; and we cannot understand the casuistry which satisfies the conscience of a man who edits a periodical ostensibly devoted to religion, which replenishes its coffers with the price of palpable falsehoods.

If it were true that a religious paper could not be financially successful without taking money for the advertisements of worthless or delusive remedies, a course might be suggested worthy of the main object of these papers. But it is not true; for there are a few happy illustrations of the fact that, even in a religious newspaper, "honesty is the best policy."

We call the attention of our large circle of readers to this matter, in the hope that they will use their influence to put an end to what we regard as a serious blemish in religious newspapers, and one which injures the good reputation which they ought to enjoy. And we call the attention of those religious newspapers to which our remarks may apply to this matter, in the hope that we shall not have to recur to in a more explicit manner.

FECAL ANEMIA.

The *New York Medical Record* says:—

This is a title of a paper read recently by Sir Andrew Clark before one of the London societies. The essential ideas expressed were not new, but their grouping was somewhat novel. Under the heading of fecal anæmia, the writer discussed the question of anæmia occurring in young girls about the time of the establishment of menstruation. We have usually been taught to regard these blood-changes as due to the very systemic disturbance incident to the inauguration of a new and most important function. We have recognized the exciting causes as well. On these general grounds we have been content to let the matter rest. Sir Andrew Clark takes up one aspect of the case, and elaborates therefrom a novel and highly probable theory. He alludes to the profound mental and emotional changes occurring in the female sex at the time of puberty. The young girl, who has been only a creature full of mere animal spirits, becomes shy and retiring. Questions of personal physiology force themselves upon her. She shrinks from the contemplation even of matters relating to the hygiene of the pelvic organs, much more from their performance. The importance of regular evacuations is not recognized, and, unless friendly maternal counsel is at hand, she speedily becomes the victim of obstinate constipation. However great the bodily discomfort therefrom may be, she suffers in silence, not daring to ask for relief. As a result of this perversion, or, rather, abeyance of function, the system speedily becomes clogged, effete materials accumulate in the bowels, and there remaining they undergo chemical change. Poisons of the ptomaine and leukomaine classes are formed. These are absorbed into the circulation, and set up a form of systemic infection. This runs a slow chronic course, evincing its presence in the usual clinical picture of paleness, headache, dyspnœa, palpitation, dyspepsia, and the other customary features of anæmia. The old idea made constipation simply one feature of its condition; the new makes it the direct cause. Of course all cases of anæmia cannot be brought under this category, nor does Sir Andrew Clark make any such claim. Experience shows, however, the correctness of his views in a large proportion of cases. The marked relief that follows from a thorough cleaning out of the bowel is a matter too well known for more than mention. It ensues even before any blood-forming tonics are given, and often the patient seems to improve about as rapidly without as with the latter. The constant absorption of poison being checked, nature regains the upper hand, and the vital machinery once more runs smoothly.

It is in such cases as these that excellent results have been obtained by the use of cascara. This drug is distinctly a tonic-laxative, of which the dose can be gradually reduced instead of increased, as is usually the case with laxatives. It restores the normal vitality of the muscular fibre of the gut, exhausted by over distention.

TURPENTINE IN DIPHTHERIA.

A recent number of the *New York Medical Record* says:—

We have, on several occasions, referred to the use of turpentine in diphtheria. Recommended originally in Germany, and claimed to be almost a specific, it was there, also, that the employment of the drug was subjected to the most severe criticism. Some recent publications have again drawn attention to the alleged value of this substance, and most remarkable among these is an article by Dr. Roese, which appeared in the *Therapeutische Monatshefte*. The author asserts that he has employed turpentine in diphtheria for the past four years. In that time he lost only five cases out of sixty that came under treatment. Two of the fatal cases concerned infants one year old, who appeared moribund when first seen, and died a few hours later. The other fatal cases were also unusually severe from the start, two dying in thirty-six hours, and one surviving five days. This is certainly a noteworthy record, as diphtheria statistics go.

The oil of turpentine was administered in drachm doses, three times a day. Sweet spirits of nitre was used as a corrective, in the proportion of one part of the spirits to of fifteen of the turpentine. Symptoms of intoxication were never observed by the author. In addition to the turpentine, a two per cent. solution of sodium salicylate was given every two hours, in tablespoonful doses. A gargle of chlorate of potash solution was likewise employed whenever possible. Under this plan of treatment rapid amelioration of local signs and constitutional symptoms was observed.

Usually improvement began at once, and it was rarely necessary to push the drug beyond five or eight doses. It should be remarked in this connection, however, that a very generous and stimulating fluid diet (strong broth, port wine, milk, etc.) formed a feature of Dr. Roese's plan of treatment.

Those who are inclined to be sceptical with regard to the utility of medicines in the severer forms of diphtheria (and the profession contains many such) will scarcely accept the author's figures without challenge. On the other hand, for the very reason that violent diphtheria ordinarily justifies so gloomy a prognosis, we are ever ready to employ any means at our command which may possibly reduce its frightful mortality. There is no reason, therefore, why the turpentine treatment of this disease should not be given a fair trial.

ANTISEPSIS IN MEDICINE.

In a late number of the *Dublin Medical Press*, there is an article by Drs. Casson and Brownen, drawing attention to the fact that in the treatment of infectious diseases, the remedies employed for the protection of attendants or for the prevention of the spread of infection may produce beneficial results in the condition of the patients themselves. They say that iodine, slowly evaporated, might prove a useful adjunct to other means of treatment. According to Koch, the only *effective* disinfectants, besides chlorine, bromine, and iodine, are corrosive sublimate, osmic acid, and potassic permanganate. They necessarily exclude the mercurial sublimate from consideration. "Valuable, perhaps the most valuable, as it is among antiseptics for local surgical application, its highly poisonous character forbids its employment as a general medical disinfectant." Osmic acid and bromine are too expensive, and the offensive odor of the latter is against its employment. Chlorine is objectionable from the disagreeable pungency of its vapor. The potassic permanganate is comparatively valueless unless employed in considerable strength. Iodine, however, presents none of these disadvantages. It has long been recognized by all authorities as a true germicide disinfectant. They point out that its employment as a general disinfectant has been greatly lessened, owing to the difficulties experienced in its regular and gradual vaporization. Combined, however, with salicylic acid, they find that "it can be readily and permanently incorporated with fats, paraffins, or wax, and when candles made from these hydrocarbons thus treated are ignited, iodine and phenol are evolved in a gaseous vaporized form. The phenol is produced by the decomposition of the salicylic acid, and its amount varies according to the temperature or rate of the combustion. Its presence, may be verified by passing the vapors of the combustion through dilute nitric acid, and thus producing trinitrophenol or picric acid. But where the combustion is rapid and complete the phenol is entirely destroyed, as all other *organic* materials such as eucalyptus, which has been suggested for somewhat similar treatment, must necessarily be. It is not so, however, with regard to the iodine. Being *inorganic*, it is wholly volatilized and thrown out as vapor into the surrounding atmosphere, but it is in no sense destroyed. Its presence in the gaseous products of the combustion may be demonstrated by passing them through a solution of starch, or along a tube moistened with starch mucilage. In either case the iodide of starch is speedily produced, and may be recognized by the usual tests. A very faint odor of iodine may be detected when these candles had been burnt in quantity in a close atmosphere; but this is never unpleasant, or in the least degree irritable to breathe; indeed, in several cases of asthma, spasmodic cough, and 'hay catarrh,' the patients have experienced great relief from the iodine vapor thus liberated. As a deodorizer its action is most marked; the smell of tobacco smoke is quickly and entirely destroyed by the combustion of these candles in the smoking room. The air of stuffy rooms and smelling closets may be rapidly purified by the same means. The odor of sulphuretted hydrogen and of ammoniacal air from a close stable have been very speedily and completely discharged by contact with the same vapor."

PERSONAL.

Dr. Rolland, of Montreal, Professor of diseases of the ear and throat in Victoria Medical Faculty, has been elected a member of the Otological and Laryngocical Society of Paris.

We are pleased to learn that Dr. Robt. Howard of St. Johns is still improving in his general health, and that quite recently he saw a case in consultation with one of his confreres. This is the first professional work he has done in two years.

Dr. Bower, of Waddington, N. Y., was in Montreal recently.

THE TIME FOR THE ADMINISTRATION OF CERTAIN REMEDIES.

The late Sir Robert Christison, in his life-time Professor of Materia Medica in the University of Edinburgh, gave the following directions as regards the time at which certain remedies should be taken:

"Iodine and the iodides should be given on an empty stomach. If given during digestion, the acids and starch alter and weaken their action. Acids, as a rule, should be given between meals. Acids given before meals check the excessive secretion of the acids of the gastric juice. Irritating and poisonous drugs, such as salts of arsenic, copper, zinc and iron, should be given directly after meals. Oxide and nitrate of silver should be given after the process of digestion is ended; if given during or close after meals the chemicals destroy or impair their action. Potassium permanganate also should not be given until the process of digestion is ended; inasmuch as organic matter decomposes it and renders it inert. The active principle of the gastric juice is impaired and rendered inert by corrosive sublimate, tannin and pure alcohol; hence they should be given at the close of digestion. Malt extracts, cod liver oil, the phosphates, etc., should be given with or directly after food."

LISTER (SIR JOSEPH) ON VARICOCELE AND ITS TREATMENT.

I wish to impress this important fact upon you: do not think, because a man is discovered to have varicocele, that therefore it is your duty to subject him to an operation. The cases which call for operative interferences are few, and surgical measures employed under other circumstances are unjustifiable.

THE TREATMENT OF SICK-HEADACHE.

Dr. W. Gill Wylie of New York has produced excellent results with the following method of treatment: So soon as the first pain is felt, the patient is to take a pill, or capsule, containing one grain of inspissated ox-gall and one drop of oil of gaultheria, every hour until relief is felt, or until six have been taken. Dr. Wylie states that sick-headache as such is almost invariably cut short by this plan, although some pain of a neuralgic character remains in a few cases.

EARLY PATERNITY.

A correspondent of the *British Medical Journal* reports a well-authenticated case in which a boy thirteen years and four mounths old successfully impregnated a woman. The *Journal* states that the earliest case heretofore recorded of precocious puberty is that of a boy aged fourteen.

Cablegram, London, Oct. 25th.— W. R. Warner & Co., Phila., received highest award from American Exhibition in London for superiority of their sugar-coated Pills and Effervescing Salts.

NEW BUILT HOUSES.

A recent number of the *Dublin Medical Press* says:—

"A great many people could testify to the numerous ill-effects which follow residence in newly built houses before there has been time to get rid of the moisture contained in the walls. It has been estimated that a modern brick dwelling of medium size requires about ten thousand gallons of water for its construction, a large proportion of which is still present when building operations are completed. Nothing is more deceptive then the appearance of the walls within a month or two of their being coated with plaster. To the touch and sight they appear beautifully dry, but no sooner are fires lighted than the moisture, displaced by the warmth, deposits elsewhere and shows itself in patches of damp. Heat alone will not materially expedite the presence of dessication; free ventilation is even more essential. The evaporation of this moisture absorbs enough heat to keep down the temperature of the rooms, and inflicts positive injury on the tenants by provoking the reduction of heat. The effect of radiation, apart from mere temperature, is easily seen by the sense of coolness experienced on leaving a crowded room for an empty one, even when the actual temperature of the latter is not less than that of the former. Further, damp walls are better conductors of heat than dry walls, and subject the occupants to greater and more rapid changes of temperature. At the town of Bâsle, in Switzerland, a regulation has recently been put in force prohibiting the habitation of houses within four months of their completion, and it would be well if this provision could be extended to other places.

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OBSTETRICS AND GYNECOLOGY.

BY A. LAPTHORN SMITH, B.A., M.D., M.R.C.S. ENG., Lecturer on Gynecology in Medical Faculty Bishop's College.

How many women have died from the rupture of an undiagnosed extra uterine foetation, it is impossible to say, but it is certain that the number must be very large. As the general practitioner becomes more expert in diagnosing these cases, and as the gynecologist is always ready to operate, their condition will become less and less desperate. When in Berlin last year I saw two such cases in one week, I think, in the practice of one operator in which the ruptured tubes were ligatured and removed. One of these women was up and about before I left Berlin, and the other, as I learned from Martin at the Congress at Washington, died a few days later, from anæmia. Martin at the time complimented the physicians who had made the diagnosis.

A case of successful operation of one of these cases was mentioned at the last meeting of the medical society here, by Dr. Gardner. The case occurred in the practice of Dr. Brown, who promptly diagnosed the condition and called Dr. Gardner in consultation, who as promptly decided to operate with the gratifying result that the lady is alive and doing well, and with every prospect of continuing so.

In quite a contrast to this is a case reported in the *British Medical Journal*, 3rd March, 1888, in which the attendant says: "He found the patient pallid and pulseless, and refusing to be moved. Surmising the nature of the case," he says, "he decided that nothing could be done." At the autopsy his surmise was confirmed.

Testimony still continues to pour in from every quarter in favor of Apostoli's treatment of fibroids and chronic metritis and endometritis. Even Keith, one of the greatest of English Laparotomists, is so satisfied with the result of a year's work with the method, that he says that he does not intend ever to remove a fibroid with the knife again. Dr. Burton (*British Medical Journal*, 3rd March, '88,) says: "As one of the English surgeons who have profited by Apostoli's teachings, and as I have put the teachings into practice, I may be considered to be in a position to say something on the question. In the first place I have seen no appearances threatening danger to life from the use of electricity, and I have used it sixty times. Secondly, I have used it in seven cases of uterine myoma, and of this number three are already practically cured, the tumors having become so much reduced in size as to have become insignificant. As I only began the treatment in Dec., I claim that three recoveries out of seven cases in the short space of two months quite equals the success obtained by castration operations. I look upon the latter, as regards the treatment of the tumors under discussion, as dead as amputation of the finger for whitlow (which was the recognized treatment in the time of Charles the II)."

I have been using electricity in gynecology since June of last year, several hundred times, and have not yet seen any dangerous symptoms, and the results, which I from time to time publish, are very satisfactory. Of course the ovariotomists, especially the ones who annually reap a large

harvest of healthy ovaries, pain in which is so easily cured by high tension faradism, are not pleased with Apostoli, and they have declared war to the knife against his method. As a rule the fight is conducted fairly, but in the last *British Medical Journal*, Mr. Tait has been tempted to use an argument which is quite unworthy of a man of such acknowledged greatness. He was in Paris a year ago, and because the leading gynecologists there did not tell him anything about Apostoli, Mr. Tait argues that the treatment of fibroids by electricity is worthless. If Mr. Tait will turn to page 33 of the English Edition of Apostoli's book on Metritis, he will find this objection anticipated. Apostoli says: "It was in France that curetting the uterus was first practiced; it was a Frenchman, Recamier, who was the first to formulate it scientifically, and it is in our country full of new and original ideas, which timidity, *to say nothing else*, soon so often strangles, that it is actually practised the least."

Thus it has always been and thus it will always be. When Mr. Tait himself goes abroad he is everywhere received with the highest honors; it is principally in his own country that his statements are treated with coolness and suspicion.

If Mr. Tait would say that he had tried Apostoli's treatment in the balance and found it wanting, the argument would have far more weight; but Mr. Tait does not want to learn anything about it, for he will not even give it a trial, as the honest old Scotchman, Keith, has done with the result I have mentioned at the beginning of my article. To add to the weakness of his argument he says: "I have just been called to Paris to a lady with a fibroid who has been given up by all the doctors." We see the same thing here in Montreal every day, patients going to New York to have wax removed from their ears," or to have a laceration of the cervix repaired, which could be quite as well done at their very door. The fact that Mr. Tait was called to Paris to attend a lady, who could be far better treated by a gynecologist at her very door, therefore proves nothing. If Mr. Tait should be convinced of the advantages of Apostoli's treatment, as Mr. Keith has been, there will still remain for his skill thousands of cases which Apostoli's method does not pretend to touch.

I recognize in Mr. Tait the most skilful remover of ovaries the world has ever seen, but this does not render me blind to the advantages of a treatment which leaves the ovaries in.

Dr. George McKeough of Chatham, Ontario, is the author of an important paper appearing in the *Canada Medical and Surgical Journal*, in which he records eleven cases of puerperal albuminuria which may be recapitulated thus: Nine mothers recovered and four children were born alive. One case in which convulsions did not occur was no seen until labor had set in naturally; the mother made a good recovery but the child was still born. In the four cases in which temporizing measures were instituted until labor came on, convulsions came on in three, one mother died and three recovered, the child perished in all four. In the two cases in which labor was excited after convulsions occured, both children born dead, one mother recovered were and one died. In the four cases in which labor was in duced after a temporary trial of expectancy, but before convulsions took place, all the mothers made good recoveries and the four children lived.

After reviewing the advice given in the standard text books, which is altogether in favor of letting things alone, he comes to the conclusion that it is better to induce labor without waiting for the appearance of nervous signals, which only come on after the child has been irretrievably damaged and the mother's life has been placed in danger.

In a paper which I read a little over a year ago (14 Jan., 1887, before the Medical Society of Montreal) *Can. Med. Rec.*, Mar., 1887, I laid down dogmatically as a guiding principle of treatment: that, unless for grave reasons to the contrary, we should induce premature labor at any time after the seventh month, at which we find the urine of the pregnant woman loaded with albumen or considerably deficient in urea. By freely accepting this course, I said, all doubt and hesitation in the treatment of these most anxious cases were removed. I was led to adopt this axiom from the following considerations: that even if there were no convulsions, the condition of uræmia from mechanical pressure on the renal veins was a very serious one for both mother and offspring. The child suffers even more than the mother from uræmic intoxication, and may even be killed by it before convulsions come on, while the mother may have her brain more or less seriously injured by the circulation through it, for a long time, of the poisonous fluid, and so end her days in an Insane Asylum. This occurred in a case which I reported in the same paper, and in which I have ever since regretted not having induced premature labor.

I thus compared the relations of albuminuria, uræmia, puerperal convulsions, and puerperal mania:

A moderate degree of renal congestion causes albumen to appear in the urine.

A greater amount of renal congestion causes the albumen in the urine to increase and the normal quantity of urea in the urine to diminish, and at the same time the urea being retained in the blood and bathing the nerve centres causes headache, disordered vision, &c.

A still greater amount of urea in the blood and of albumen in the urine causes poisoning, and at the same time starvation of the nerve centres, and so that irritation is set up and convulsions ensue. And if this condition continues for a considerable time, the nerve cells are seriously altered in nature, so that even when the cause is removed they can with difficulty or not at all recover their normal functional activity.

As there is no longer the slightest doubt as to the mechanical nature of the disease, and as it is so easily, safely, and speedily remedied, I heartily agree with Dr. McKeough when he urges the induction of premature labor in the albuminuria of pregnancy.

Dr. E. S. McKee, in the course of an able article in the Feb. number of the *Cincinnati Med. Jour.*, says: "There is a growing tendency among careful obstetricians to limit vaginal examinations of the woman in labor as much as possible. Yet we must know the position of the child and the state of the labor. To be able to tell this with accuracy, it is needful that we cultivate more thoroughly the external means of the diagnosis of pregnancy. The *tactus eruditus* should be practised industriously. A great opponent to the frequent vaginal examinations is Prof. Crede of Leipsic. This gentleman claims that women in labor and the lying-in-state are diseased only through infection from without. He who does not examine a woman cannot infect her, is a statement of Crede's. The solutions of continuity, which are seldom or never absent in the course of child-birth, are generally made by some artificial assistance to parturition. The most careful digital examinations may result in wounds, and we should dispense with them altogether or restrict them to the fewest number possible. For weeks in succession at the lying-in hospital at Leipsic, the digital examination is omitted in all normal cases, especially if there is much sickness among the patients. This omission results not in trouble, but most satisfactorily. What we need is more thorough knowledge on this important subject of external diagnosis in pregnancy, a knowledge gained only by experience, then we will use the internal method only when necessary. The surest prophyllaxis against infection consists in total abstinence from vaginal examinations.

A good deal of discussion has taken place lately at the various societies as to the danger of antiseptic midwifery, especially where bichloride of mercury is the agent used. And the same question may be raised in employing sublimate solution in gynecological practice. I have had one case of slight mercurial poisoning in a midwifery case, but it was due to the neglect of two precautions which should always be observed: 1st, never to guess the quantity of corrosive sublimate you are putting into the water, and 2nd, to allow the patient to sit on a chamber or otherwise empty her vagina shortly afterwards. But out of an immense number of irritations with sublimate at my office (from 1 in 2000 to 1 in 5000) I have never seen any unpleasant results, and Apostoli's experience has been the same in many thousand cases. But this immunity is due to the simple precaution of pressing down the perineum and emptying the vagina after every irrigation.

Montreal, 21st March, 1888.

Society Proceedings.

MEDICO CHIRURGICAL SOCIETY OF MONTREAL.

Stated Meeting, December 9th, 1887.

JAS. PERRIGO, M.D., PRESIDENT, IN THE CHAIR.

PATHOLOGICAL SPECIMENS.

Development of Bone from Periosteum.—Dr. BELL presented a section of the shaft of the femur illustrating the reproduction of bone from the periosteum. The specimen was secured from a patient whose thigh had been amputated ten days after receiving a compound comminuted fracture of the lower end of the femur and the head of the tibia, opening the knee-joint. Extensive sloughing had occurred, and at the time of the operation the patient was *sapræmic* from the absorption of putrid material from the sloughing tissues. Twenty-five days later it was found to be necessary to remove two and a half inches of the end of the bone owing to sloughing of the flaps. At the primary amputation the periosteum had been stripped from the

bone to the extent of nearly an inch above the point at which it was removed. The bone removed at the secondary operation showed an undoubted development of bone in the periosteum thus detached.

Dr. SHEPHERD said that this case was most interesting in connection with the views recently gived by Dr. MacEwen of Glasgow in the October and November numbers of the *Annals of Surgery*. That authority held that periosteum does not initiate the reproduction of bone. In Dr. Bell's case the periosteum had certainly developed bone. He had no doubt of the correctness of Dr. MacEwen's views when he states that the periosteum is not the chief factor in the reproduction of bone, this function being performed by the soft tissues in the bone itself.

Dr. MILLS thought that the Society was much indebted to Dr. Bell for having brought to its notice a specimen that might readily have been overlooked, and which illustrates one of the great laws of reproduction of lost tissue in the adult, in a structure but imperfectly understood as yet. There were other methods of ascertaining the laws of the organism than by laboratory experiments. Disease was one of nature's own experiments; and medical practitioners might supplement the work of the physiological and pathological laboratories by the results of their clinical observations. The views most likely to be correct and lasting were that resultant of the comparison of facts derived from many different fields of observation. It was, moreover, to be remembered that however carefully conducted our laboratory experiments, there was always some disturbance of nature's processes, a principle often forgotten by over-confident investigators.

Purulent Meningitis.—Dr. JOHNSTON reported a case which had been under the care of Dr. Molson, and in which he had performed an autopsy. Patient was a healthy woman, who, whilst in the sixth month of pregnancy, fell and struck her head. She developed soon after brain symptoms, deviation of the eyes, flexion of the neck to one side, and active delirium. She was admitted to the General Hospital, miscarried, and some days after died. At the autopsy, the ovarian veins were distended but patent, the renal veins free. There was severe parenchymatous nephritis with slight interstitial nephritis. Spleen and liver enlarged and soft. Uterus enlarged, cavity dilated, placental site free from inflammation. On the right side there was purulent meningitis of the inner surface of the pia mater extending to the base in the middle and anterior fossæ of the skull. There was thrombosis of the right lateral sinus and inferior petrosal sinus. No fracture of the base of the skull was found, but there was purulent otitis media of the right side with pus in the mastoid cells. The tympanic cavity was covered with granulations. In this case there was no history of ear trouble. Dr. Johnston had no doubt that the otitis was the cause of the meningitis, and that the fall a short time previously had very little to do with the fatal result of the case.

Rupture of the Heart.—Dr. H. L. REDDY exhibited a heart showing rupture of the left ventricle, and related the following history :—S., aged 68, day watchman by occupation, enjoyed good health for the thirty years preceding his death. Good family and personal history. Was a tall, well-built man, but not obese. On Monday last he left his house at 5 A.M. to go to work. When going down the steps of his house he was seized with a severe pain in chest; he managed to walk about a quarter of a mile, when he was forced to return and go to bed. In my absence Dr. Spendlove kindly saw him for me, and has given me the following note: "Patient complained of severe pain below the lower third of the sternum and extending two inches to the left of the sternum and three or four to the right; pain down both arms to the fingers, and a sensation of tingling in the finger-tips, general malaise, and a feeling as if a heavy weight was on the chest; slight dyspnœa; no cough; lungs normal; pulse slow and full but intermitting once in four beats; heart-sounds slightly indistinct, no murmurs to be heard; vomitted once after taking a cup of tea. Dr. S. gave him a small dose of nitro-glycerine, which apparently had the effect of removing the intermittence." I saw the patient about 12.30 P.M.; he complained of severe pain in the epigastrium, and was greatly troubled with eructation; pulse was then normal, and there was no symptom pointing to the heart as the cause of the trouble. I ordered him ¼ gr. of morphia, which relieved him greatly, and in four hours another ¼ gr., which relieved him entirely. The patient, after the second dose of morphia, seemed quite well, and enjoyed his broth diet. On the afternoon of the 8th, or four days after the first attack, whilst reading the newspaper, he threw back his head and died instantly.

At the autopsy Dr. Johnston found the follow-

ing conditions: Pericardium moderately distended by blood, on opening, blood and clot to amount of 10 oz. found within the sac, the clot forming a complete mould about the heart. A small laceration, half an inch long, situated in anterior wall of left ventricle, one inch to left of septum, surrounded by an area of ecchymosis. On opening ventricles, left nearly empty. Endocardium appears normal, but at spot of rupture, on separating trabeculæ, an area of softening can be seen, and bristle readily passed through the laceration. On transverse incision above laceration, a thrombosed vessel seen surrounded by soft yellow area of necrotic muscle. Subpericardial fat in excess, but heart muscle not fatty. On microscopic examination, no extreme atheroma of coronary or systemic arteries.

Dr. MacDonnell thought that the thrombosis of the vessels in the wall of the ventricle caused the symptoms which preceded death, but that the rupture itself occurred later.

Mucous Polypi.—Dr. Johnston exhibited some microscopic specimens of mucous polypi from the nose. In eight or nine cases the condition was seen in its early stage to be strictly an adenoma of the nasal mucous glands. In later stages in the epithelial cells cause a disappearance more or less complete of the cell outlines, leaving only areolar tissue infiltrated with mucous fluid. This secondary change probably the reason why these growths are commonly but wrongly called myxomata of the nose and confused with true myxomata, which are tumors of quite a different nature, originating in connective tissue.

Dr. J. J. Gardner exhibited a horizontal section of an absolutely normal human eye through the mucula lutea. Specimen was hardened in Müller's fluid, cut under alcohol imbedded in celluloidin and stained, first with hæmatoxylon and after with eosin. Under the microscope the yellow spot shows well the thinning of all the layers of the retina, with entire absence of the rods, leaving the cones very distinctly seen.

Sub-diaphragmatic Abscess.—Dr. Shepherd reported a case which had come under his observation some months ago :

John R., aged 60, carter, was admitted into the Montreal General Hospital, under Dr. Wilkins, on the 14th of April, 1887, complaining of a painful swelling in his right side. More than a year ago he had, after exposure, become thoroughly chilled, and had suffered from very acute pain in the region of the stomach; he was able to be about again in a day or two, but never felt quite well. The severe pain returned in a couple of weeks in the right hypochondriac region, and was increased by inspiration and movement of the body. At this time he became jaundiced. He remained in bed for a week; after this the pain left him, and he got up and went about, but was unable to do any work. In the middle of April, 1886, he had another severe attack of pain in the right hypochondrium, and this time he remained in bed till July, 1886. He now first noticed a swelling in his right side, immediately below the margin of the costal cartilages. Since July, 1886, although he was never confined to bed, he always suffered from pain, and the swelling in his right side gradually increased. At the beginning of April, 1887, the swelling became more painful and rapidly increased in size; he entered the General Hospital. During the whole period of his illness he never had any rigors nor any marked shortness of breath.

When examined on entrance into hospital, April 14, 1887, the following note was made by Dr. Wilkins: "Well developed man, not emaciated or anæmic; skin cool and moist; no hectic flush; no jaundice; temperature 98.5°, respirations and pulse normal; appetite good, sleep well, and always lies on his right side. In the right hypochondriac region is a large, smooth, globular, fluctuating swelling extending below the costal margin to within half an inch of the umbilicus, and laterally to near the median line; lower border of the swelling is convex and yields to pressure; right side of chest from third rib downwards is expanded, the intercostal spaces widened and bulging, and a dull note on percussion in front and in the axillary from the third rib downwards and from the middle of scapula behind. Breathing sounds are completely absent over this area. In upper part of right lung breathing is feeble and somewhat tubular in character. Left lung and heart normal. Urine normal. It is impossible to make out the liver dulness or to feel the lower border of that organ."

On the 18th of April Dr. Wilkins aspirated the fluctuating swelling in its most convex portion below the ribs, and drew off 25 ounces of creamy sweet-smelling pus. This was examined microscopically for hooklets of echinococci, but without result. Nothing but blood, pus and necrotic tissue was found. After the aspiration, patient

felt much more comfortable, could sleep on his right side, and had no pain or nausea. He was transferred to the surgical wards, and on April 23rd Dr. Shepherd, under ether, made a vertical incision some four inches long in a line with the nipple, and commencing immediately below the costal margin on the right side; the parts were carefully incised, and it was found that the wall of the abscess cavity was adherent to the abdominal parietes, and consisted of a thick mass of inflammatory tissue. When the abscess cavity was opened there was a gush of fluid, and afterwards each inspiration caused the pus to flow more freely; to facilitate the exit of pus a large rubber tube was introduced, which acted as a siphon; in this way some 80 ounces of pus were drawn off. The patient now showed signs of collapse, breathing shallow, pulse extremely feeble, so the evacuation of pus was discontinued. On exploring the abscess cavity with the finger the diapragm could be felt above, reaching as high as the third rib, but owing to the size of the cavity its lateral and posterior limits could not be made out; its lower limit consisted of a dense mass of inflammatory tissue, through which the liver could not be felt; a probe introduced could be felt posteriorly between the fourth and fifth ribs. The cavity apparently now contained as much pus as had been already evacuated, but owing to the condition of the patient it was decided it would be more prudent to allow it to drain away gradually through a rubber tube; so the wound was sutured, a large drainage-tube left in, and a dressing of sublimated jute and washed gauze applied. Patient, on getting to bed, under the influence of heat and stimulants soon rallied. During the next three days there was a large discharge of pus, and the dressings had to be changed daily. Temperature never rose above 99°, and from the day of his operation patient improved, the abscess cavity rapidly diminishing in size. By tho 1st of June the discharge of pus had almost ceased, the abdominal organs had resumed their normal position, and liver dulness was normal, but breath sounds over right lung still feeble. Patient rapidly gained flesh, and when discharged from hospital in August there was a small sinus at the site of the wound which discharged a little serum. For the last three months patient had been at work, and looks, and says he feels, well. The sinus has not yet quite closed. The breath sounds could be heard over the whole right lung, but at the lower part, both in front and behind, still rather feeble.

Dr. Shepherd said that there was no doubt in his mind about this being a case of abscess which originated between the diaphragm and the liver. The remarkable point about the case was the absence of history of fever or rigors, the slow and comparatively painless growth, and absence of jaundice. These conditions are those which generally indicate echinococcus disease: so at first, until a microscopical examination gave a negative result, the case was diagnosed. The symptoms were not acute enough for liver abscess, but when no hocklets or other evidences of echinococcus were found it was thought probable that it was such a case. He had intended making a counter opening posteriorly to facilitate drainage, but the collapsed condition of the patient, after the evacuation of so large an amount of pus, warned him to complete the operation as soon as possible and to apply restoratives. The result was quite as satisfactory as it would have been had an opening been made posteriorly as intended, a dependent opening when abscesses above the diaphragm being much more important than when they are below it, on account of pressure of the abdominal walls on the contents of the abdomen always tending to obliterate any cavity that may exist. In this case it was remarkable how soon such an enormous cavity disappeared.

Dr. RODDICK thought that it was not improbable that the case originally had been one of empyema; that the pus had ulcerated through the diaphragm, and got between that structure and the liver.

Dr. GEO. ROSS said that the explanation offered by the last speaker was an ingenious one, but not practicable. The anatomical structure of the parts did not give any likelihood to the supposition. The case had probably been originally one of subdiaphragmatic peritonitis which had become localized. We may have a pleurisy following a subdiaphragmatic inflammation without perforation of the diaphragm, but that such a small opening as would naturally result from an ulcerating empyema could completely drain the pleural cavity, and collect below the diaphragm, was not probable. Any empyema would surely come forward more readily than downward.

Dr. MACDONNELL related a case of peri-cæcal abscess, in which pus found its way up behind the peritoneum, between the liver and diaphragm, and

burrowing through the latter, formed an abscess in the lung, and was coughed up by the patient.

Dr. WILKINS said that when he first saw the case the probability of its being an empyema occurred to him, but he, for various reasons, discarded this idea. From the early history, jaundice, etc., he was inclined to regard the case as one of abscess of the liver; but against this was a total absence of a history of fevers, rigors, or sweating. He had now no doubt that the case was one of abscess between the liver and diaphragm. One feature about the case was the apparently slight amount of pain which pressure on the tumor caused.

Dr. SHEPHERD, in reply to Dr. Roddick, said that not one symptom in the early history pointed to an affection of the pleura; the pain was always below the costal cartilages of the right side, and there never was any cough or difficulty of breathing. At the time of the operation there was no pus in the plural cavity. Fluid always finds its way in the direction where there is the least resistance, and this is certainly not the direction of the diaphragm. In his experience the pus in empyema always pointed in the neighborhood of the nipple, and when it pointed elsewhere it did so by burrowing beneath the tissues external to the lung wall of the thorax, after perforating an intercostal space.

Four Cases of Literal Lithotomy.—Dr. FENWICK said: I desire, Mr. President, to lay before the Society four specimens of vesical calculi recently removed by lateral operation.

The first is a mulberry calculus removed in August of the last year from a young fisherman from Newfoundland, aged 22 years, who had noticed the usual symptoms of stone for the past five or six years. For the past year he had been quite unfit for his usual avocations, and at length decided on seeking relief by coming to Montreal. The voyage from Newfoundland was unsually rough, and he stated that the pitching of the vessel was very distressing. The usual operation of lateral lithotomy was performed. The patient made a good recovery; the urine ceased to flow from the wound on the 14th day, and he returned home ten days later.

The second specimen was removed by lateral lithotomy from a Scotch farmer, aged 57, who had suffered from difficulty of micturition for the past year and a half. He had also noticed occasional spasm, persistent pain at the point of the penis, and frequency in passing urine; he could not retain his water longer than two hours at any time, and more frequently it would be passed every hour. He presented an anxious, care-worn appearance, was a strong, robust man, and otherwise well-nourished and healthy-looking. His physician had suspected stricture, and had failed in an attempt to pass a No. 4 catheter into the bladder. This, he stated, had been followed by hemorrhage, the only time, indeed, in which he had lost blood. An ordinary sound was passed into the bladder and a stone at once struck. The prostate gland was not enlarged, and the urine was found to be normal and otherwise healthy. I may state that this man's brother, a year or two before, had been successfully operated on for stone by Dr. Roddick. Lateral lithotomy was performed on the 27th September last, and the two calculi shown were removed; their united weight is 243 grs. The patient progressed favorably. On the tenth day after the operation he complained of some bladder irritation so that I determined to pass and leave in a soft rubber catheter. This was done with a view of hastening the closure of the wound in the perineum. The pressure of the catheter, however, could not be endured; it was removed on the second day after its introduction. The urine ceased coming by the wound on the fourteenth day. The wound made rapid progress towards improvement and closed on the seventeenth day after the operation, and he was allowed to return home on the twenty-sixth day from the date of operation.

The third specimen submitted was removed from an old gentleman, aged 69 years, by lateral lithotomy. It is almost pure lithic acid, and one of the largest specimens of the kind in my collection, its weight was 625 grs. The operation, which was performed on the 1st November last, was attended with some difficulty owing to the high position of the bladder, due apparently to an enlarged prostate gland. The bladder was, however, readily incised, but on attempting to enter with the finger I found that the point of my finger did not reach further than the commencement of the prostate. Fearing, if I used any force, that the bladder would be pushed beyond my reach, I requested my friend Dr. Roddick, who has a much longer index finger than I have, to complete the operation, this he did with some difficulty; no further cutting was necessary as the opening in the prostate was large enough for the purpose. The bladder was then carefully washed out, and a

large-sized gum-elastic tube introduced through the wound and tied in. This was removed by the patient himself the morning after the operation, and to this I attributed the subsequent disturbance which delayed the recovery. Erysipelas attacked the wound on the fifth day, the edges of the incision presented a sloughy aspect, and the erysipelatous blush extended over the buttocks and up the back as high as the shoulders; septic sore throat followed. The entire fauces and hard and soft palate were covered with diphtheritic membrane. The muriate tincture of iron with quinine was prescribed in full doses, and he was supported with beef-juice, milk and champagne. At the same time the throat was sponged over with a solution of salicylic acid ʒ i to ℥ i glycerine every two hours. This treatment was persevered in, and about the fifteenth day after the operation the symptoms began to improve. The urine was highly ammoniacal, and as he was constantly wet, which added to his distress, a soft rubber catheter was introduced into the bladder so as to drain through the natural passage. This was kept up for several days. He was, however, somewhat difficult to manage, as he would himself remove the instrument, but always permitted it to be reintroduced. This was followed by marked improvement. The erysipelas subsided about the twenty-second day and the wound became more healthy in appearance. The catheter was retained at intervals up to the 30th ult. The patient is now making a slow recovery; the urine ceased coming through the wound on the 5th of December and the wound itself is all but closed.*

The fourth specimen is mulberry calculus, removed from the bladder by the lateral operation on the 22nd of November, 1887. The patient is a healthy-looking lad of 18 years. I was informed by his mother that he had suffered from bladder irritation off and on since the age of five years. During the past twelve months he had observed that he experienced pain in riding over a rough road; there was a continued irritation, frequency of micturition, and pain at the point of penis. He had never passed blood. No examination for stone had ever been made until recently, when the gentleman whom he consulted had passed a sound and readily found the stone. He advised him to come to Montreal, and he was admitted to the Montreal General Hospital on the 16th November, 1887. The day following an examination was made while the patient was under ether. A short beaked sound was passed and a stone struck; it appeared hard, had a clear ring, was evidently of good size, and was rough on the surface. Lithotomy was advised. As the examination had been attended with slight bleeding and increased bladder irritation, it was decided to defer the operation for a day or two. On Tuesday, 22nd of November, the operation of lateral lithotomy was performed. Some difficulty was experienced in delivering the stone. The patient progressed favorably. A sponge wrung out of a very weak solution of sulphuric acid was placed in his bed against the wound, on the seventh day from the date of operation he first experienced a desire to pass urine, but not over half an ounce was passed by the natural passage. This gradually increased in amount each day. On the thirteenth day the urine was passed in full stream and very little by the wound, on one the sixteenth day the urine ceased to come through the wound and two days subsequent the wound closed. The patient was allowed up, and he returned home on the 24th Decceember, 1887. The weight of the stone was 411 grs.

Cirrhosis of the liver.—Dr. R. L. McDonnell related a case of recovery in cirrhosis of the liver, where ascites had been present to a very great extent. The patient, a woman aged 35, married, but childless, was admitted to the Montreal General Hospital in August, 1885, with a large quantity of fluid in the abdomen. She had suffered during the past year from dyspeptic symptoms with morning vomiting. There was a history of spirit drinking. Prior to admission, was tapped to the extent of 200 ounces. There was tenderness over the hepatic region. The liver was small, measuring three inches in the right mammary line. She remained in hospital for ten months, being tapped at first every two or three days, but subsequently at longer intervals, the amount withdrawn being at first about 180 to 200 ounces, but at the time of leaving hospital but 16 to 20 ounces could be obtained. She was tapped sixty times during that year, and taking 150 ounces as an average, altogether 8,500 to 9,000 ounces were removed. The woman has gained health and strength, and is now apparently well and attending to her household duties. The liver is of the same size, the belly empty, and

*He progressed slowly, but steadily, and early in January returned to his home in the country. Since then I have heard of his steady amendment

dyspeptic symptoms have disappeared. The total amount of fluid removed in a year is large, considering the patient's weight (125 lbs.) and size. Much larger quantities have been taken, but the case is instructive as illustrating the benefit to be derived from paracentesis in cirrhosis.

Dermoid Ovarian Cyst in a Pregnant Woman.—Dr. Wm. Gardner alluded to a case he related to the Society with exhibition of the specimen last winter. The case in question was one of ovariotomy for dermoid cyst, with twisted pedicle and most alarming symptoms of peritonitis. At the operation there was found universal adhesion of the cyst; it was necessary to remove the second ovary for commencing disease. Washing out of the cavity was freely practised, and a drainage tube was used for five days. It lay against the posterior wall of the uterus for five days. The uterus was somewhat large and vascular, but pregnancy was not seriously thought of, yet in a few weeks the woman was found to be undoubtedly pregnant. He now had to report that a few weeks ago she had been confined at full term by her ordinary medical attendant, Dr. Molson, of a large, healthy, living child, and had made an easy and rapid recovery. This was the second ovariotomy Dr. Gardner had done during pregnancy. The first case was also confined at full term, both mother and child being alive and well. Considering the dangers of pregnancy with ovarian tumor when uninterfered with, such cases surely furnish a strong argument in favor of prompt performance of ovariotomy even when at the time of diagnosis there are no alarming symptoms. Both of Dr. Gardner's cases were, however, done for urgent symptoms.

The Dangers and Accidents of Local Treatment in Puerperal Cases.—Dr. J. C. Cameron then read a paper on this subject, as follows:—

Dr. Matthews Duncan has somewhere remarked that the subject of antiseptics in midwifery is by far the most important obstetrical question of the day, being of even greater moment to the public than the prevention of epidemics, for while epidemics come only at intervals, puerperal septicæmia is a constant menace to the lives of a most valuable portion of the community. Antiseptics may justly be said to have revolutionized the practice of midwifery, so that results impossible anywhere a few years ago are now everywhere obtainable. Antiseptic midwifery in some form or other is practised almost universally; but unfortunately, general use is apt to run speedily into abuse, and the antiseptic system is no exception to the rule. Uterine and vaginal douches, when properly administered in suitable cases and at suitable times, are invaluable, but otherwise they may prove dangerous. To point out some of the dangers and show how they may be avoided is the object of this paper.

The opinion seems to be prevalent among the profession that, while the intra-uterine douche is *generally* safe, the vaginal douche is *perfectly* so. No particular skill is considered necessary. Impressed with its harmlessness, some recommend the antiseptic vaginal douche as a prophylactic against infection during the puerperal state, and advise its use in all cases. Not unfrequently we find the operation entrusted to the nurse or some incompetent person, without direction or supervision, as if douching was a trivial matter out of the province of the physician or perhaps beneath his dignity. With such doctrines and practice I cannot agree, for in my opinion prophylactic douching during the puerperal state is not only unnecessary, but frequently the cause of serious harm. Though believing in thorough antisepsis during labor and the puerperal period, and admitting the value of vaginal and uterine douching in certain conditions, I am nevertheless convinced that the douche is not perfectly harmless, and that it should be used only when clearly indicated, and then with caution.

Liability to absorption through tears, fissures, abrasions or other traumatisms constitutes the chief danger of the vaginal douche. The contraction of the constrictor muscles narrows the orifice of the vagina and favors sacculation of its canal; consequently part of the infection is apt to be retained, perhaps for a considerable time. Indeed absorption is more liable to take place through the vagina than through the uterus, because the latter usually contracts firmly and empties its cavity, especially if the injections be hot.

For various reasons the intra-uterine douche is more dangerous than the vaginal, especially if the current be too strong or the outflow insufficient. Fluid may be forced through the Fallopian tubes into the abdominal cavity, causing acute peritonitis or even death, as in Voht's case; or a thrombus may be dislodged from the placental site and hemorrhage take place; or air may find its way directly through the uterine sinuses into the veins; or some of the injection fluid may enter the veins.

In Stadfeldt's case, symptoms of poisoning appeared, while a large sublimate douche (1 to 5000) was being administered, proving that the mercuric solution entered the circulation directly. The uterine sinuses, firmly attached to the muscular wall of the uterus, are closed during muscular contraction, but gape open during relaxation; therefore, in relaxed conditions of the uterus, fluid or air may readily penetrate into the veins. I have seen sudden death produced in this way during an intra-uterine injection of perchloride of iron for post-partum hemorrhage.

The fluids most commonly used for injection are plain water or solutions of permanganate of potash, carbolic acid or corrosive sublimate. Plain hot water is the safest, and is quite sufficient when debris is to be washed away and a simple mechanical effect is the only one desired. But in septic cases where germicide action is also required corrosive sublimate is by far the most effective, but at the same time it is the most dangerous. Death has occurred in sixty hours from the effects of an intra-uterine sublimate douche (1 × 2000). Patients suffering from anæmia or kidney troubles are very susceptible to the action of mercury; so, too, are those who have recently been under mercurial treatment, or in whom there is marked atony of the uterus or extensive traumatisms of the genital tract. It may be taken as a general rule that sublimate injections are contra-indicated in all such cases, or should at least be given with the greatest caution.

Frequently an intra-uterine douche is followed by a chill and rapid rise of temperature (104° or over), accompanied sometimes by colic and abdominal tenderness. As a rule, these symptoms are of nervous origin, though exceptionally they may be due to absorption. In men, the passage of a catheter or sound is occasionally followed by a sharp rigor and high fever; surgeons call this urethral fever, and attribute it to nervous influences. Similar symptoms may be caused by the passage of a uterine sound or by artificial dilation of the cervix, without any evidence of inflammatory mischief; nervous influences are undoubtedly the cause. So, in like manner, the passage of a foreign body (irrigation-nozzle) into the uterus, and the distension of the uterine cavity with fluid, especially if the outflow be insufficient, may produce similar nervous symptoms sometimes of an alarming nature.

What precautions are to be taken for the avoidance of these dangers and accidents?

1. The patient should always be placed across the bed in the *dorsal* position, with hips well raised and thighs everted. The operator has then better control over the direction and force of the injection as well as over the outflow. In intra-uterine douching, the anterior lip can be more easily seized and the uterine cavity straightened, if the patient is lying in the dorsal position.

2. The vaginal or uterine nozzle should be *inflexible* (glass or hard rubber), without a central orifice in the bulb (to avoid injecting fluid through the Fallopian tubes or dislodging thrombi from the placental site). The openings in the bulb should be directed slightly backwards, so that the injection stream may flow away from the fundus, not towards it.

3. A sufficient outflow should be secured. The vaginal orifice should be kept open. Before an intra-uterine douche is give, the anterior lip should be seized with a vulsellum or tenaculum and drawn gently downwards till the uterine cavity is straightened. The nozzle can then be more easily introduced, and a good outflow is secured. After the operation it should always be ascertained that there is no pouching of the vagina or retention of fluid.

4. The quantity of fluid injected should be small; from one to two litres is quite sufficient. Large and long-continued injections are not more effectual, while they greatly increase the risks.

5. Antiseptic injections should be weak, unless powerful germicide action is required in acute septic cases. For an ordinary vaginal douche a sublimate solution of 1 × 7000 or 1 × 5000 is quite strong enough. The strong solutions (1 × 2000 or 1 × 1000, or even 1 × 500) should be used only in urgent septic cases, and then with the greatest caution. After a sublimate injection, a pint or two of plain hot water should be run through to wash away any retained sublimate, thus lessening the risks of absorption.

6. The injection should always be used hot (108°–112° F.) Hot water is a powerful stimulant, causing the uterus to contract firmly, thus closing up the sinuses and tubes, and expelling the injection fluid from its cavity.

7. To prevent nervous chill and rise of temperature, a glass of brandy or some diffusible stimulant should be given fifteen minutes before

operating. The stimulant acts primarly by bracing up the vascular system, and secondarily by increasing the resisting power of the nervous system. If this precaution be taken, and the injection be given rapidly and without undue exposure or chilling of the surface, rigors and fever will rarely follow. In very nervous, excitable patients, or where there is likely to be pain, ether may be advisable.

During the more severe methods of intra-uterine treatment, such as curetting or brushing (écouvillonage of Doléris), the placental site is apt to be disturbed; some of the little plugs may be scraped or brushed away from the mouths of vessels, permitting the entrance of air, fluid or septic matter. Curetting or brushing should be followed at once by a small douche of very hot water given very slowly and carefully; a suppository of iodoform should then be passed into the uterine cavity and the vagina loosely packed with a strip of iodoform gauze.

Dr. BLACKADER said he would like to ask the reader of the paper under what circumstances he now advised curetting, and whether he would perform this operation whenever there were any septic symptoms present. He thought that injections should not be too hot, for he had seen serious symptoms follow the employment of very hot injections; peritonitis even had resulted from the injection of plain hot water.

Dr. WM. GARDNER related an instance illustrating the dangers of vaginal injections with improper syringes. The case was that of a lady whom he attended during the past summer for a violent attack of pelvic peritonitis. She had been for some months suffering from pelvic symptoms, and on one occasion proceeded to take a vaginal injection with the ordinary syringe; but having mislaid the vaginal pipe, she used the rectal pipe with a single aperture at the end. The vagina was lax and the perineum and cervix lacerated. She had no sooner begun than she was seized with violent pelvic and abdominal pain with symptoms of collapse, speedily followed by vomiting, fever, and all the other symptoms. She was in bed for four or five weeks, and was for a time in great danger. There can scarcely be a doubt that the water was forced directly into the uterine cavity through the open cervix.

Dr. RODDICK said he was cognizant of not a few cases where serious results had followed the use of bichloride of mercury injections. He thought Condy's Fluid a safer antiseptic. But best of all is hydronaphthal; it has germicidal qualities nearly equal to bichloride of mercury, but no odor or irritating qualities, and there is no danger of poisoning.

Dr. MILLS thought that the untoward results sometimes following vaginal and uterine injections were to be explained through the impressions directly made on the nervous system as well as by absorption of the fluid used. This being the case, the good effects of the stimulant, given as Dr. Cameron recommended, prior to the injection were probably owing to its acting by lessening the susceptibility of the nerve centres to any sort of afferent impressions. He doubted whether the effect on the circulation was not rather favorable than otherwise to absorption. Dr. M. wished to know whether there was any exact evidence bearing out the belief that fluids were more readily absorbed from the vagina than the uterus after parturition. It is scarcely what would be expected.

Dr. CAMERON, in reply, stated that the value of curetting, in suitable cases, is unquestionable, viz., where portions of the placenta are retained; the brushing out of the uterus would not, in all cases, replace curetting. The danger of absorption is greater through the vagina than the uterus, as the former is always more or less abraded, and also because the injected fluid, owing to the greater tendency of the vagina to sacculate, remains longer in contact with the absorbing surface. He had written this paper as a protest against the indiscriminate and careless use of injections in the puerperal state.

Correspondence.

LETTER FROM NEW YORK.

The disadvantages under which a correspondent labors, when he attempts to write a letter upon general topics connected with medicine, is that he is certain, in the case of a very large medical centre like New York, to give a one-sided view or review of his subject. Perhaps the fact that my time here has been chiefly devoted to the consideration of certain special branches may however make it more easy to speak with authority about them. To begin with, it seldom strikes a visitor to this city that in extent, population and wealth (consequently in variety and amount of disease

and the special means adopted to relieve it) New York may lay claim to being the second city in the world. Because New York, Brooklyn, Jersey City, Hoboken, Long Island City, and the suburbs of these, with over 3,000,000 of population, are practically one and the same, and the clinical material included within their limits is quite as available for teaching purposes as is that within a circle having 20 miles radii and its centre Charing Cross. And since the magnificent Vanderbilt donation to the Medical Department of Columbia College, and other generous gifts of like kind, this vast amount and variety of disease is being more and more put to good use for the teaching of medicine.

The post graduate courses here may be described as excellent. I will not say that they offer as good inducements to the students as the German courses, but I must say that a man may study to unusual advantage any or all of the branches into which medicine and surgery are commonly divided. It is a matter of taste which of the two schools one chooses, probably certain branches are more effectually taught in one than in the other. Taken as a whole, I prefer the Polyclinic on East 34th Street. The arrangements for the practical study of the Eye and Ear are second to none anywhere, the courses on the Throat and Nose are complete; the man who does not profit by them has himself to blame. The teachers are anxious to impart instruction, and every facility is offered to the student. Not only are certain daily or tri-weekly lessons given in manipulative work, but for each branch cards are issued, giving a list of hospitals and teachers connected with the schools where the student may work up the branch from "early morn till dewy eve," if he be so inclined. The New York Post Graduate School and Hospital on East 20th street is also well worth a visit. The students here are not quite as numerous as at the Polyclinic, a fact somewhat in favor of the Post Graduate School, in my judgment at least. I would like to support the proposition that one is much more likely to make progress in study (particularly where skill in the handling of certain instruments of precision is desired) with a few patients and few students, than in a clinic crowded with teachers, students, and patients.

To begin with, it is essential that one (every beginner at least) should have the same teacher, because no two men impart instruction in the same manner. Then in crowded classes one does not readily obtain that contact between teacher and pupil which is so desirable where hand-to-hand instruction is involved. Finally it is in crowded clinics more difficult to follow up individual cases from time to time.

After wandering around and taking notes of the various teaching advantages available for the special branches I was interested in, I decided to spend my mornings with another searcher after practical knowledge, as office assistant to a well known oculist and aurist here, Dr. Mittendorf, Assistant Professor in Bellevue. My afternoons, with the exception of occasional visits to other Eye, Ear and Throat clinics in the city, were devoted to the courses given by the surgeons attending the New York Eye and Ear Infirmary. Those who are familiar with the four "head" specialties will recognize the names of Drs. Bull, Loring, Noyes, Derby, and Cocks, on the Eye; Rupp on the Ear; and Asch—one of the most friendly of teachers and most genial of men—on the Throat and Nose. The competition between the post graduate schools and less ambitious special courses, like that of the Eye and Ear Infirmary, is a very healthy and a very profitable one to the student. Seventy-five per cent. of the teachers have studied in the various continental schools and are well read men. They all frankly state their belief that shortly the graduated student will have advantages here not to be surpassed by those of Vienna or Berlin,—advantages arising out of the necessity for having an intimate knowledge of German,—the Viermese English courses to the contrary, notwithstanding—on the one hand, and out of the perfecting of the teaching system here on the other. I should like to say something later on that subject while breathing the atmosphere of a foreign city. Similarly, I would advise any one who proposes to spend some time here in post graduate study:—Take a week or ten days in looking around. You can study what you will, where you will, and, last but not least, at almost whatever cost you will, if you will only hunt it up.

One would imagine from the way in which quinine is given by professional drug distributors, and the facile manner in which it is consumed by the laity, that malarial germs were laying siege to the city. And yet I can find no evidence of its existence to any extent. The dozens of doctors and patients whom I have questioned on the subject furnish no signs of its especial prevalence. I

suspect that the Yankee public have tired of the good old word "cold" as an etiological explanation, and for a time at least have adopted a more classical term.

The Dispensary and Hospital evil has perhaps not become so pressing as it is in London, but it thrusts itself upon one's observation everywhere. People—well dressed people—present themselves daily at the charitable institutions, and obtain relief which they ought to have paid some hard-working doctor for. The necessity on the part of teaching institutions for clinical material, the want of unanimity upon this subject among members of the profession, and the cupidity of the patients themselves, here as elsewhere, combine to prostitute the proper use of these charities. A side issue lately arose out of this matter. It was found (and I know that it is not an uncommon thing to do here, even among some of the so called better class of practitioners) that a certain attendant upon one of the largest hospitals was in the habit of diverting such of their patients who were worth anything to his own private office, and getting out of them what he could in the way of fees. I do not propose to discuss the morality or the medical ethics of the affair, but I think that the action of the medical board in calling for his resignation was, on the whole, commendable.

Intubation of the larynx, especially as a substitute for tracheotomy, is still under trial. It may safely be said that even if no better results are obtainable from it than from tracheotomy for the cure of croup and diphtheria, it will always be valuable as a relief measure. Parents who refuse to permit a "bloody operation" will allow intubations to be performed. I have seen O'Dwyer's latest modification of his introducer, tubes and extractor, and they are marvels of mechanical ingenuity. The introduction and extraction of O'Dwyer's tubes, under the circumstances which commonly call for their use, is no easy matter. "Let them who think it is just try it," said an instructor to his class in laryngology the other day.

A phase in the attempt, old as the hills, to cure epilepsy by operative procedure has presented itself here in the field of ophthalmology. Dr. Stevens, an oculist in large practice, is the author of a work on nervous diseases, in which he claims to have cured a large number of epileptic and allied cases by operations upon the ocular muscles. Everybody knows that muscular insufficiencies, as well as disturbances of the normal relation of one set of eye muscles to another, will bring about dizziness, nausea, and other subjective symptoms. Dr. Stevens claims that they also give rise to much more serious neurotic troubles, whose relief lies on the connection of such muscular deficiencies and insufficiencies. The matter must be regarded as yet *sub judice*, but when one remembers in how many parallel instances similar extravagant claims have been made, it is best to maintain for the present an attitude of intelligent scepticism.

Lately, in the Academy of Medicine, Dr. Kratzshmar read a very interesting paper on Dettweiler's treatment of phthisis, and entered a plea for the erection of his pavillion hospital convenient to large cities like New York, where unfortunates might make a stand against this terrible disease.

To-night I am going to attend the dinner given by that most delightful of all the New York social and literary gatherings, "The Twilight Club." The subject for discussion,—"How would you spend a million dollars for the public good?" suggests the Royal Victoria Hospital in Montreal. What a grand position for a consumptive hospital on the Dettweiler principle! About one-eighth of the population in temperate climates dies of phthisis in some of its forms, and notwithstanding all the workers from Æsculapius to Koch we get now no better results from treatment than came to St John Long or any other empiric,—ancient or modern. Enforced fresh air breathing in all weathers, full and generous feeding, the most rigid hygienic observances—all these could be carried out on the southerly slope of Mount Royal, as it hardly can be within the limits of any other city on this continent; and, in my humble opinion, it would do more good and be, consequently, a more lasting monument to the munificence of its founders than it can ever hope (from its remote, inaccessible and inconvenient position) to accomplish as a General Hospital.

About Dettweiler's plans it may be said that while his theory is old and commonplace, the means to the end he would reach are at least practical, somewhat novel, and infinitely more effective than any kind of drug treatment. Of all the plans which in common with my fellow practitioners I have tried for the relief of phthisis, I render thanks that I have always been a follower of the searchings of that medical free lance, Dr. Felix Oswald's, and I always regretted that a severe Canadian climate prevented my carrying out his

ideas with the majority of people who possess a small stock, either of money, courage or common sense. Dettweiler proposes to treat this majority irrespective of their possessions.

I have met many Canadian medical men here, both local practitioners and post graduate students. Dr. H. N. Vineberg, well known to Montrealers, is Dr. Hunter's assistant in Gynecology at the Polyclinic, and holds as well the position of Assistant Physician in the New York Hospital. I have to acknowledge many courtesies received at his hands. Dr. Frank Ferguson, originally from the Lower Provinces, has worked his way up to the chair of Pathology in Long Island College, and is also Assistant Pathologist at the New York Hospital. Dr. Ferguson is still a loyal Canadian, as frequenters of the Canadian Club can testify.

Dr. Chappell of Toronto "has fallen upon his feet," and is in partnership with Dr. A. H. Smith. Dr. Woodrough of London, Ont., Dr. Snow, Dr. Robinson, and a dozen others are also here.

C. A. W.

659 Lexington Avenue,
New York, Feb. 20, 1888.

Progress of Science.

FEEDING PHTHISIS.

By Solomon Solis-cohen, A.M., M.D.,
Philadelphia.

Physicians of the present day, regarding phthsis as a fever, are taking the hint from Graves' celebrated maxim, and feeding it. Not that it has waited for the present day, or even decade, to demonstrate the value, or rather the imperative necessity, of a supporting treatment of the disease whose prominent clinical feature is so aptly expressed in many languages—consumption, schwindsucht *pithisis*. Not that the principal features of our hygienic and dietetic regulations may not be found in the writings of the older authors,* and how far back we hardly venture to fix the limit; but that the subordination of medication and the desire for medication to alimentation and concomitant measures, is distinctly modern as a generally adopted practice.

However much others may have contributed to this result, and however independently the practice has been elaborated, no one can consider the subject of alimentation in phthisis without rendering at least a passing tribute to the value of Debove's method of forced feeding. His striking results emphasized the lessons of experience, encouraged us to disregard loss of appetite, or even complete anorexia, proved that powers of digestion and assimilation did not decrease *pari passu*, and indeed were not to be arbitrarily limited by any other method than actual experiment; and his systematic use of meat powders gave us a hint as to the best method of preparation of food, the merit of which is no less that American chemists have since much improved upon it.

Our resort to the tube of Debove may be limited to cases in which physical or phychial disability prevents superalimentation by less distressing methods. The word is used advisedly. Often as the writer has preformed *gavage*, and he flatters himself not with any great degree of awkwardness it has in almost every instance proved a source of distress to patient and physician; though it must be interpolated that the refined disgust of the omnipresent carping friend, relative, nurse or other busybody, has always far exceeded that of the sufferer.

However, in most instances, by judicious persuasion, explanation or insistence, it will be possible to induce patients to take a sufficiency of aliment in the ordinary way.

It is again to Debove that we must give credit for having demonstrated what is meant by *sufficiency* of aliment, namely, the extreme limit of assimilability. We have not only to provide for current needs, to repair daily excess of combustion but to make up as far as possible for previous unrepaired waste.

We have thus to determine in each case, and to prescribe with the same precision as in the case of drugs, the quantity and quality of food, and the times of feeding. As the results of experience, general rules will gradually formulate themselves in the mind of the practitioner; and confirmation or modification will result from the progress of physiological chemistry. The opinion most widely prevailing at the present time assigns the first rank as an aliment in phthisis to flesh, and more especially to beef. The results obtained by certain individuals, who devote themselves to the treatment of disease by an exclusive diet of beef prepared in a certain and most excellent manner, conjoined with lavatory potations of hot water to prepare the digestive canal for the reception and disposition of the aliment, cannot be ignored, whatever we may think of the theories or methods of the practitioners in question. Without confining themselves to beef, scientific physicians are justified in giving it the first rank.

It should be taken at least twice daily, three times if possible. It may be eaten raw, as it comes from the butcher, or it may be chopped finely, seasoned to taste, and made into little cakes, which are eaten raw or slightly browned on the grid-iron. It may be taken in the form of rare beefsteak broiled in its own fat, or as very rare

*Of modern authors, the best exposition of the hygienic treatment of consumption is the essay of Dr. B. W. Richardson, published in 1856, and reprinted in *The Asclepiad*, April, 1885, No. 2, Vol. II.

roast beef. Other methods of cooking are to be prohibited. The meat is to be as juicy as possible and fibrous portions are to be removed.

Very often one can be satisfied with the use of butcher's meat, raw or cooked as above. Sometimes, however, whether from partial failure of digestive powers or other condition necessitating reduction in bulk without loss of nutritive material, or suggesting conversation of the energy that would be expended in digestion, it becomes necessary to resort to special methods of preparation. The meat powders prepared by various pharmacists, more especially for forced feeding, here render valuable aid. By cutting boiled beef into fine pieces, drying by means of a water bath, and grinding in a coffee mill with the teeth set closely, an excellent meat powder may be made in the kitchen. (Dujardin-Beaumetz.)

The preparation from which the writer has seen the greatest benefit, and which he is most frequently in the habit of prescribing, is Beef Peptonoids. Whether from improvement in the process of manufacture, rendering it more palatable, or from decrease in the fastidiousness of patients, there has not recently been the same difficulty in getting patients to persevere in the use of it that was experienced in former years.

The methods of administration may be varied almost indefinitely. It may be added to soups and broths, to milk punch, egg-nog, etc., taken in warm or cold water, or made into paste with milk or water and spread upon bread. Beginning with a teaspoonful three or four times a day, the amount is to be increased as soon as the preferable method of administration is determined upon, to a tablespoonful or more. It is preferably given among the supplementary articles of diet between meals.

Next to beef in the dietary, the writer would place milk, sufficient care being exercised to obtain a good, pure article, and to keep it properly. The "half Alderney" milk, supplied by a well-known dairyman in Philadelphia, is usually better than either the pure Jersey milk or that from ordinary cattle.

The manner of drinking milk is not unimportant. Ice-cold, gulped hastily, the chances are all in favor of its promptly coagulating and failing to digest, perhaps to be vomited, perhaps to cause considerable discomfort in various ways. While with some patients it is best taken cold and with some quite hot—a matter for which experience seems to be the only guide—in the majority of instances it should be slightly warmed (say to 100 deg. F.) and sipped slowly, so as to thoroughly incorporate it with saliva. Ten minutes may well be given to a tumblerful of milk. and in this way the fancied "disagreement" of which many persons complain may be avoided. If necessary, lime water may be added or peptonized milk employed. When these expedients fail koumyss may be tried, and failure here may indicate the necessity of greater attention to the condition of the gastro-intestinal mucous membrane: not necessarily medication, however. Potations of hot water (flavored, if necessary), "ærated," acidulated or "mineralized" in some cases, from half a pint to a pint, one hour before meals, or *lavage* with simple alkaline solutions may answer. When disinfection of the alimentary canal seems indicated, creasote, iodoform and the sulphur compounds are among the preferable agents.

From one to two quarts of milk daily, in divided doses, should be given, if possible, partly with meals, partly between meals; as a vehicle often for Beef Peptonoids, etc., and sometimes for alcohol.

Alcohol, despite all that is said, forcibly and truly, against its indiscriminate employment, is in reality a food in phthisis. We may or we may not be able to follow the molecular changes and cellular reactions from the moment of its introduction to that of its elimination; but whether or not physiological chemistry has said its last word upon this subject, that intelligent empiricism upon which clinicians must continue to depend has demonstrated the value of alcohol in wasting diseases, and more especially in those associated with elevation of temperature.

It need not be given in excessive doses. A tablespoonful of good brandy or good whiskey night and morning, in the form of milk punch—or better cream punch—with a glass of good Burgundy wine at dinner, will ordinarily suffice, though much larger quantities may be given at times with much advantage. The elder Flint records instances in which a pint of whiskey daily was taken for a long time, with apparently very good effect. The writer knows of similar cases. It is only fair to add that cod-liver oil was also used freely in all these cases.

Sometimes malt liquors may seem to be preferable; and, if decidedly more agreeable, the patient's taste may be considered; a good wine of coca, used intermittently, is often useful. For prudential reasons, alcohol may be disguised as an extract of malt—and here the power of the diastase of the malt in aiding digestion is often of service—or it may be made into a prescription, as in the formula of Jaccoud, of glycerine, mint water and rum.

The combination of alcohol with milk, malt, cod-liver oil or glycerine is theoretically preferable to (Fothergill) and in experience more advantageous than its separate ingestion.

Returning to the consideration of meats, the value of an occasional variation of our beef diet must be recognized—in the way of a digression, however, rather than of a total or lasting departure. Mutton—preferably broiled chops—poultry and game, carefully cooked, and whenever possible rather underdone, may be employed from time to time. The "dark meat" is preferable to the "white meat" in the case of poultry. Sweetbreads are often tempting to a failing appetite, and may assist digestion. While the skill of the cook may

well be called upon to supplement the knowledge of the physician, yet elaborate dishes of all kinds, high seasoning of all kinds, and, in plain English, messes of all kinds—even among our humbler patients, the "Irish stew"—are to be rigorously interdicted. Even soups should be as simple as possible. Eggs, when palatable, despite fears of "biliousness," form a useful addition to the dietary. A raw egg may be sucked from the shell, and will thus often relieve an irritable condition of the pharynx. It may be beaten up with milk, or milk and whiskey. If the egg be cooked it may be poached or soft boiled. Omelette, scrambled eggs and fried eggs are, as a rule, to be avoided. Hard-boiled eggs are sometimes well digested, but in most instances are not Fish, when relished, may form one of the auxiliary articles of diet. As to variety, the taste of the patient may be consulted. As to preparation, frying should be strictly prohibited. Broiling, boiling, and baking are permissible. Of shell fish, when the patient desires it, and there is no other objection, oysters and clams may be permitted. All others should be prohibited. Many phthisical patients, however, are unable to take even an oyster without considerable discomfort.

The green vegetables—lettuce, celery, spinach, water-cress, etc., are to be freely partaken of. The leguminous group, especially green peas, made into soup, boiled with milk or otherwise prepared, are of benefit. Starchy and farinaceous foods are, as a rule, to be avoided, though they need not in all cases be absolutely interdicted. They must, in any event, be subordinated to nitrogenous aliments, and the quantity taken be minimized. The especially indigestible and fermentable articles, such as potatoes and turnips, are best avoided altogether. Even the amount of bread consumed should be limited, and, if possible, that made from the whole wheat, or the gluten bread, or one of the similar preparations manufactured for diabetics, employed. Pastry and sweets are not to be thought of save to be rejected.

While the diet is thus to be largely nitrogenous, a sufficient proportion of carbo-hydrates must enter into it. Fats and oils, preferably from the animal kingdom, will supply this. Cream has already been mentioned. Butter should be freely used. "Butter and bread" is to replace "bread and butter" in the consumptive's diet-list. Oil-dressings of salads, etc., are useful in the same connections. Cod-liver oil may be given, though it is doubtful whether the large quantities sometimes ordered are assimilated. A tablespoonful three times a day probably represents the extreme limit, and half that quantity may often suffice, in many cases, the patient will do just as well without any. When the pure oil can be taken, either floated on whiskey or in any other way preferred by the patient, it is best given in that form. Emulsions extemporized by the physician are in general better that the proprietary ones. Ether, say Hoffman's anodyne, may be introduced into the emulsion, or given separately immediately following the dose of oil, and will not only assist in its solution, but stimulate the pancreatic secretion which prepares it for absorption. The combination of pancreatic preparations with cod-liver oil is rational; that with pepsin is based upon ratiocination or experience that the writer cannot follow.

When sufficient fatty matters cannot be taken in any of the ways indicated, oleaginous inunctions may be resorted to. If the oil used for anointing has an unpleasant odor, one of the essential oils, such as oil of gaultheria, or oil of bergamot, may be employed to disguise it. Inunctions with lanolin may be doubly utilized as a means of introducing iodoform or other desired medicinal agents.

The frequency of meals is a point of much importance in the alimentation of phthisical patients. Rarely more than three hours, never more than four hours, except during sleep, should be allowed to elapse without the taking of food.

The American custom of three set meals daily need not be altered, but in the intervals between meals, and just before going to bed, some of the lighter aliments, milk, soup or broth, milk-punch or egg-nog, etc., should be taken, and as already stated, with the addition, if possible of Beef Peptonoids. When the Peptonoids powder is not palatable or not available for any reason, the Liquid Peptonoids may be substituted and in some cases, being entirely pre-digested, is preferable. In addition to the glass of punch, or of plain milk or cream, taken at bed time, a glass of milk or cream, with or without alcohol, or a glass of wine or spirits, sometimes advantageously reinforced by half an ounce of Liquid Peptonoids, should be at hand to be taken in case of waking during the night or early morning. Liquid Peptonoids with coca is a good preparation for this purpose; for coca, like strong coffee under similar circumstances, facilitates the return of sleep. When a sufficient quantity of food is not taken in the six times suggested, the frequency may be increased. While our object is distinctly "cramming," it is not well to so overburden the digestive apparatus as to give rise to positive discomfort.

The duty of the physician, who feeds his cases of phthisis, is not finished when he has prescribed the diet, even in all its details; or when, in case of failure by natural methods, he has resorted to *gavage*, inunction or rectal feeding. He must prepare the stomach and intestines to welcome the nutritive materials furnished, and to prepare them for absorption. He must endeavor to remove obstacles to proper elaboration and assimilation and to stimulate and assist these functions, not forgetting the respiration, which in Arbuthnot's expressive phrase, "is the second digestion," or the circulation which is to cause the oxygen-carrying corpuscles and the nutrient lymph to penetrate into all the tissues. He must further watch, and if necessary assist the process of elimination, so that broken down,

useless, and sometimes toxic, materials may be speedily removed to make away for that which will better and more vigourously assist in tissue-building and force-production.

This subject, including as it does the consideration of general and special hygiene, as well as mechanical, chemical and medicinal aids to digestion, respiration, circulation and excretion, simple and complex, must be indicated; but it cannot be properly studied in a paper which has already overrun its limits.

Yet one more word must be added, even at the risk of occupying too much space. Experience has demonstrated the utter futility of all measures designed to destroy the bacillus tuberculosis. A moment's reflection must convince us that even could we destroy every bacillus in the lungs, we would gain nothing; for the patient has only to open his mouth, to be invaded by a new host. So that whether we follow the opinion of the majority, and assign to this microbe supreme ætiological importance, or whether we are content to remain a minority which can at least boast among its numbers the most cultured and philosophical mind among medical men of the century, the experience of every physician and of every patient is in accord upon the all-important point that the secret of treatment is not microbicide, but NUTRITION.—*Dietetic Gazette.*

* THE CAUSE AND TREATMENT OF INFANTILE ECZEMA.

By JOHN V. SHOEMAKER, A.M., M.D., PHILADELPHIA, PA.

Infantile eczema is one of the most common diseases of early life. It is always a distressing and frequently an obstinate affection, remaining for weeks or months; but, as a rule, it is much more amenable to treatment than eczema in adults. It may occur at any period during infancy, but it is most frequently observed during the first six months of infantile life, at the time of weaning, and during the process of dentition.

It may appear in a variety of forms. In some cases it is characterized by the development of a veritable number of erythematous spots, or blocthes upon the face, scalp, and other portions of the body. In others the eruption is purely papular; in still others it consists solely of vesicles situated upon a reddened inflamed base, or both lesions may be intermingled. The pustular variety is characterized by the formation of pustules of various sizes, either alone or comingled with vesicles, papules and vesico-papules. The disease may involve any or all portions of the integument, but it most frequently attacks the face, scalp, neck, chest, buttocks, and the upper and lower extremities. It pursues a variable course. The papular and erythematous forms usually disappear by resolution, but they may pass imperceptibly into the chronic squamous stage of the disease. The surface then presents a dull red infiltrated appearance, and is covered with a number of minute epidermic scales.

The vesicular and pustular varieties rarely temperate in resolution. As a rule, the vesicles and pustules burst within a few days after their development, exposing a raw weeping, bleeding surface, from which a sero purulent fluid exudes, and dries into large, firm, yellowish crusts. When the scalp is the seat of the eruption, the hairs are matted together by the exudation, and the entire scalp becomes covered with yellowish masses, forming the condition known as crustalactea. As the disease progresses the irritation increases, so that the inclination to scratch the parts becomes almost irresistable, and patients tear the surface with their finger-nails even while asleep. This, of courses, increases the exudation and enlarges the diseased area. After an interval of several weeks the morbid action may cease, spontaneous repair take place, and these crusts drop off, disclosing a healthy but somewhat reddened surface. Usually however, unless appropriate treatment be instituted, the disease passes into the chronic stage, and remains for months or years with occasional periods of amelioration and exacerbation.

Infantile eczema is due practically to one of four causes: 1. Insufficient or improper food. 2. Imperfect assimilation. 3. Deficient excretion. 4. External irritation.

Insufficient or Improper Food.–This is one of the most frequent existing causes of the disease. If the mother's milk is scanty in quantity, or poor in quality, or altered in character by pregnancy, passion, menstruation, anxiety or disease, the nutrition of the child will suffer, and eczematous or other eruptions speedily appear. If the child is handfed, and given unsuitable and indigestible articles of food, or, if the cow's milk upon which it is nourished is so diluted with water as to be deprived of its value, the same result will follow.

Imperfect Assimilation. — This is another potent factor in the production of the disease. The food may be perfect in all respects, but if owing to disturbances of the digestive tract a considerable portion of it is either rejected by vomiting, or hurried out through the intestinal canal before digestion and assimilation are complete, the blood will become thin, the nervous system will suffer, and various cutaneous eruptions appear.

Deficient Excretion.—Deficient excretion is not as frequently chargeable with the development of infantile eczema, as it is with many other cutaneous disorders, but many stubborn cases spontaneously disappear when the normal functions of the various excretory organs are re-established.

External Irritation.—This is frequently the unsuspected cause of numerous cases of infantile eczema. Among the common sources of irritation may be mentioned woollen or flannel clothing,

* Read in the Section of Diseases of Women and Children, at the Thirty-Eighth Annual Meeting of the American Medical Association, June, 1887.

light clothing, dyed clothing, wet diapers, scratching, and the too frequent washing of the body and scalp with soap and water. The eruption is often aggravated by the use of quack preparations, or ointments recommended by obliging friends and neighbors.

Treatment.—The general principles upon which the successful treatment of infantile eczema must be based are, to improve the nutrition of the patient, correct any disorder of digestion or excretion that may exist, and protect the affected surface from further irritation, and endeavor to restore it to its normal condition. The measures to be employed in each case will vary with the cause of the disease, and the extent, variety and stage of the eruption. In some cases attention to diet and hygiene will be sufficient to effect a cure. In other cases, local or constitutional medicine will be required, while in obstinate cases both local and constitutional remedies must be employed. In mild cases of the erythematous or papular variety, in which the deficient character of the food supply is plainly apparent, immediate improvement can often be obtained by simply giving a sufficient quantity of appropriate nourishment. There are several ways of accomplishing this. If the mother is nursing the child, and her milk is scanty or impoverished, she should be placed upon tonics and a liberal diet, and directed to give the child a definite quantity of cow's milk in addition to her own at stated intervals throughout the day. I have notes of several cases in which a rapid and decided improvement in the character and the amount of mother's milk, and a disappearance of the eruption from her child followed a liberal diet, conjoined with the use of this formulæ:

R.	Tinct. ignatiæ	10 drops
	Tinct. serpentariæ	6 drachms
	Tinct. cinhconæ	1 ounce
M. Sig. Teaspoonful in water before meals and at bedtime.		

If, unfortunately, the infant cannot be nursed by its mother, the best substitute for its natural food is pure, undiluted crow's milk, unmixed with any other substance whatever. More than thirty years ago Dr. N. S. Davis declared before this Association, that the practice of diluting the cow's milk given to infants was the direct cause of incalculable suffering and innumerable deaths. Careful observation has convinced me of the truth of Dr. Davis' assertion. Time and again have I been called in to see infants of ten weeks who were crying continually, pining away, and in addition were covered with various forms of eczematous eruptions. On inquiring what the little patients were fed upon, answers were one part milk and three parts water, one part milk, one part flour, and five or six parts water. In one case the unfortunate child was being slowly and unknowingly starved to death upon one part milk and eight parts water. My orders in every case were at once to give each child plenty of pure, unadulterated cow's milk and nothing else for food. For some I directed 2 grains of pepsin to be given in addition with each feeding. No others medicine was employed or required, and in every case the eruption spontaneously disappeared in from a few days to two weeks.

In other cases it will be found that the trouble is due to the child being given potatoes, pies, pastry, pork and all sorts of table food, preparatory to being weaned, or to assist it to cut its teeth. The child's stomach is unable to digest such food, its gastro-intestinal canal is disordered, and various eruptions appears that are charged to dentition. Dentition is a perfectly natural process, and in the overwhelming majority of cases is accomplished without any reflex or direct disturbance of the system. The cases of eczema attributed to it are numerous, but they are really due to errors of feeding and disorders of digestion.

Cases of infantile eczema, due to imperfect digestion and mal-assimilation, require to be studied carefully. Those in which there is a deficiency in the gastric juice, are benefitted by the administration at each feeding of from ½ to 2 grains of pure pepsin, or from 2 to 5 grains of lactopeptine. Nux vomica in doses of from one-quarter to two minims of the tincture three times a day is also valuable. Minute doses of the chloride of iron, or of hydrochloric acid, sometimes yield better results than either pepsin or nux vomica. If diarrhœa exist, small doses of opium or Dover's powders, with an astringent tonic, like cinchona or geranium, will be of the utmost value. In some cases a change of air, as to the seashore or the mountains, will be the most effective remedy. Cod liver oil will be found of especial value in all patients that are debilitated, anæmic, or that present any evidences of the scrofulous diathesis. It may be given in half-drachm doses three times a day, or used as an inunction every morning. In many cases no other treatment will be necessary. The syrup of the iodide of iron is also valuable. The dose will vary from five to twenty drops, according to the age of the patient. It may be given in any convenient medium or in combination with cod liver oil.

Quinine is also an effective remedy, especially in malarious districts and in cases in which the eruption manifests itself during the spring and autumn months. It may be given in the syrup of yerba santa, in doses of from ½ grain to 3 grains once or twice a day. Very often in cases arising from gastro-intestinal irritation or complicated by constipation, marked and rapid improvement can be obtained from the use of minute doses of calomel, alone or combined with a small quantity of jalap resin.

R.	Hydrag. Chlor. mitis.	1 grain
	Resinæ jalapæ	1 grain
	Sacchari albæ	10 grains
	M. Make 6 powders.	
Sig. One powder every other day.		

Podopyllin and leptandrin will also be found serviceable. Castor oil is a time honored and an effective remedy. Small doses of syrup of rhubarb or carbonate of magnesia are frequently beneficial. In acute cases accompanied by fever and an increase of the circulation, aconite is potent for good. It will be noticed that I have said nothing as to the use of arsenic in the treatment of the various forms of infantile eczema. The omission was intentional. Arsenic is sometimes requisite in the treatment of obstinate forms of eczema in adults, but in the eczema of childhood it is not only unnecessary, but frequently injurious. For many years I have not employed arsenic in cases of infantile eczema which have come under my observation. I would advise that arsenic be avoided in the treatment of infantile eczema, as its use is often productive of more injury than any benefit it may produce on the disease.

Local Treatment.—In cases in which the itching is a marked symptom, various soothing and anti-pruritic lotions and ointments may be employed. Those which I most frequently order are:

R.	Acid carbolici	2 grains
	Hydrag. chlor. mitis	10 grains
	Ung. zinci oxide benz	1 ounce
	M. Ft. ungt.	
R.	Creasoti	3 minims
	Aquæ	3 ounces
	M. Ft. loto	
R.	Chloral hydrat	5 grains
	Aquæ menth. pip	2 ounces
	M. Ft. loto.	

Applications of cold water, ice-water, lead-water and laudanum, or a saturated solution of bicarbonate of soda, will also be found grateful and calmative.

When the eruption has become subacute and chronic, and the integument is covered with crusts, it would be folly to expect any improvement until the diseased surface is exposed to view. The affected region should be covered with a starch poultice, or saturated with oil to loosen the crusts and scales, which must be carefully picked off. Various stimulating ointments may then be applied to the exposed, denuded surface, but care must be taken to avoid increasing the irritation and inflammation. The medicaments employed should be such as will constringe the capillaries and reduce the congestion, while they at the same time form a protective covering for the raw and oozing corium. The subnitrate and the oleate of bismuth and the oleate of zinc, either in powder or ointment form, are excellent applications for this purpose. The ordinary benzoated oxide of zinc ointment alone, with 5 grains of camphor to the ounce, is also serviceable. The following ointment will be found valuable:

R.	Pulv. opii	3 grains
	Acidi tannici	½ ounce
	Plumbi carbonatis	1 drachm
	Olei anthemidis	5 drops
	Adipis	1 ounce

Another excellent procedure is to brush a 25 per cent. solution of the fluid extract of geranium over the surface after the scales have been removed. Diachylon ointment, weak tar ointment, cucumber ointment, weak salicylic acid ointment, and the ointment of the carbonate of lead, may also be employed with benefit. Harsh and irritating applications must be studiously avoided, as they are certain to protract the disease. Cases due to external irritation usually require nothing more than the removal of the irritant and the application of a soothing ointment or lotion to the part affected. Tight, dyed, woollen or flannel clothing should be replaced by articles of wear composed of some less offending material. If wet diapers are at fault they should be removed as soon as soiled, the parts gently mopped dry with a soft cloth, and then dusted with zinc oxide, bismuth subnitrate, or lead carbonate, or painted with a dilute solution of geranium maculatum. If the eruption is due to the scratching and irritation consequent upon the presence of lice, the hair should be cut short, and any of the following ointments rubbed well into the scalp.

R.	Hydrag chlor. mitis	10 grains
	Acidi carbolici	3 grains
	Ungt. zinci oxidi	1 ounce
R.	Napthlithol	10 grains
	Ungt. zinci oxidi	1 ounce
R.	Sulphuris sublimate	2 scruples
	Pulv. marantæ	1 drachm
	Ungt. aquæ rosæ	1 ounce

Cases that are the result of too free use of soap and water will usually spontaneously subside upon the suspension of the practice. An infant's body should be bathed every day in tepid or warm water, but soap should not be applied to its delicate skin more than two or three times a week.

WHEN AND HOW TO USE MYDRIATICS IN THE EYE.*

By Edward Jackson, A.M., M.D.,
Adjunct Professor of Diseases of the Eye in the Philadelphia Polyclinic.

Nowhere in the medical application of drugs is clear and definite knowledge more important than in the use of mydriatics in the eye, and in very few directions has so much clear and definite knowledge been accumulated.

Besides their therapeutic applications to this organ, mydriatics are even more frequently used for diagnostic purposes. Before making such use of a mydriatic, one should always consider the possible presence of *contra-indications*. In an eye apparently normal the most important of these is an incipient or latent glaucoma. Glaucoma is an affection always tending toward functional destruction of the eye, only to be finally checked

*Read before the Medical Society of the State of Pennsylvania, at Bedford Springs, June 30th, 1887.

in the great majority of cases by severe operative procedure, and often uncontrollable even by the most radical measures. To hasten or bring about an acute manifestation of such a disease in an eye hitherto apparently free from it, must always be to the surgeon an occasion of deep annoyance and regret. And well-attested cases show that each mydriatic, with the possible exception of cocaine, is liable to produce such acute manifestations in the course of this disease. To use a mydriatic in an eye suffering from an acute outbreak of primary glaucoma, as, I regret to say, I have known to be done, is to be guilty of practice comparable to the feeding of a typhoid fever patient on violent purgatives or practicing free venesections on one in collapse. I will not here reherse the symptoms af glaucoma; but remember, that it is a disease of middle and advanced life, that it oftens presents a pericorneal zone of hyperæmia, and may otherwise closely simulate some of the conditions in which mydriatics are most strongly indicated.

A second contraindication to its use is the interference with vision which a mydriatic occasions. The importance of this is to be weighed with the circumstances of each individual case, and such a mydriatic should be chosen, and it should be so applied, that the inconvenience may be reduced to the minimum. But it is always to be remembered that when a patient comes to a physician, he has generally made up his mind that his trouble is serious enough to warrant some expenditure of time and money to get relief, and that to get the clearest possible conception of his case is the first duty the physician owes his patient.

Of contraindications in eyes manifestly diseased may be mentioned, besides glaucoma, ulcers perforating the cornea at or near its periphery, where myotics will often be more useful.

Diagnostically, mydriatics are used to dilate the pupil, to determine the condition of the iris or the structures back of it, or to paralyze the accommodation. In normal eyes, to fully dilate the pupil requires very much less of the drug than to paralyze the accommodation. Simply *to dilate the normal pupil*, a single drop of either of the following solutions will suffice:—

Cocaine hydrochlorate, gr. j, water, mxxv,
or about 1 to 25;
Homatropine hydrobromate, gr. j, water, f ℥ j,
or about 1 to 500;
Atropine sulphate, gr. j, water, f ℥ v,
or about 1 to 2500;
Duboisine sulphate, gr. j, water, f ℥ x,
or about 1 to 5000;

or daturine, hyoscyamine, or hyoscine salts used, of the same strength as duboisine.

Of the above the homatropine solution will render the pupil rather the most rigid, and its effects will pass off in from twenty to fifty hours. But *cocain cis the most generally valuable dilator of the pupil.* The dilatation it produces lasts but ten or twenty hours, is never so great in strong as in feeble light, so that there is less annoyance from exposure to the light; it produces proportionately the smallest impairment of accommodation, interfering least with near vision; and the dilatation it produces can be promptly overcome by the use of eserine, making it especially valuable after middle life, when there is a chance of the occurrence of glaucoma. And it is after middle life that a dilator of the pupil is most frequently needed; for as age advances the pupil normally grows smaller, and at the same time there is an increasing liability to those degenerative changes in the posterio-media and coats of the eye that require a somewhat dilated pupil for their thorough study. But this drug has yet another advantage. In spite of the readiness with which it yields to myotics, in spite of its inability to entirely prevent the reaction to bright light, tested in a weak or moderate light, *cocaine produces a wider dilatation of the pupil than any other mydriatic.* And this superior power of cocaine is especially manifest in old people, whose pupils often do not dilate well under other mydriatics.

Paralysis of accommodation is produced both as a diagnostic and as a therapeutic measure. It is not, as a rule, called for after fifty, although some cases do occur after that age in which such an action of a mydriatic is absolutely necessary. The difficulty of producing complete paralysis of accommodation does not greatly diminish with the approach of the age at which the power of accommodation is lost. The strength of solution required is not materially less at forty-five than at fifteen. And this is not surprising when we remember that accommodative power is lost primarily by increased resistence in the lens, rather than diminished power in the ciliary muscle. Yet early childhood, probably because of interference with the absorption of the drug and extreme activity of excretion, presents special difficulty in securing complete abeyance of the function of the ciliary muscle.

To completely paralyze the accommodation usually requires from two to five instillations of a drop of either of the following solutions:—

Homatropine hydrobromate, gr. x, water f ℥ j,
or about 1 to 50;
Atropine sulphate, gr. iv, water f ℥ j,
or about 1 to 120;
Duboisine sulphate, gr. ij, water f ℥;
or about 1 to 240;

or daturine, hyoscyamine, or hyoscine in the same strength as duboisine. Homatropine should be instilled at intervals of from five to fifteen minutes; with the other mydriatics, to avoid constitutional effects, the intervals must be much longer. Cocaine in any strength cannot, in most cases, completely control the accommodation.

Of the above, for diagnostic purposes, homatropine is greatly to be preferred. It reduces to a minimum the period of disability for eye work, recovery from it being nearly complete in from thirty-six to forty-eight hours against five or six

days for duboisine or ten or twelve days for atropine. Then, too, homatropine causes no noticeable and distressing symptoms, like the dryness of the throat, flushing of the surface, incoordination of motion, or even delirium, which are liable to follow the use of the other mydriatics. Although, as I have elsewhere pointed out (*Medical News*, July 24, 1886), this drug does usually to some extent influence the action of the heart.

When as a therapeutic measure the power of accommodation is paralyzed, such paralysis should always be made complete. Strain of accommodation occurs when the power of the ciliary muscle is insufficient for the performance required of it. In such a condition nothing could be more irrational than to lessen still further ts power while still requiring it to do some work, as inevitably happens when an eye is placed partially under the influence of a mydriatic. When in doubt as to the propriety of a certain measure, it seems natural not to push it very vigorously. So physicians, uncertain as to whether or not a mydriatic should be used, say in a case of strain of the accommodation or in commencing convergent squint, are rather apt to use a weak solution of the drug, or make the application at long intervals; thinking, by such a tentative employment of the remedy, to discover if indeed it is likely to give relief. I have even seen in cases of headache belladonna given by the mouth (causing paresis of accommodation), with a vague notion that it was especially indicated by the eye symptoms. Now, as the mydriatic used in these ineffective ways can only weaken still further the already relatively weak ciliary muscle, the result must be still greater suffering on the part of the patient, and still greater confusion on the part of the doctor. If you use a mydriatic to relieve strain of accommodation, use it so that complete paralysis of accommodation will be secured as soon as possible, for only then does accommodative effort cease. Homatropine is inferior to atropine or duboisine where the influence over the accommodation is to be long maintained; for after each instillation of the former, recovery of ciliary power will begin within two or three hours, and the instillations must be repeated at least that often, to prevent the alternation of periods of rest. With the other mydriatic solutions recommended for this purpose, at least eight to twelve hours elapse before there is any noticeable lessening of the influence of the drug, so that three instillations a day will be sufficient to uniformly sustain their action. Again, the period after the use of the drug is suspended, when the eye is but partially under its influence, is one of especial danger. Even with careful, intelligent patients, much of the benefit that would otherwise accrue from prolonged mydriasis is often lost at this time.

As a therapeutic measure, dilatation of the pupil is resorted to in cataract, mainly involving the centre of the lens; and in breaking up posterior, or central anterior, iritic adhesions. For the former purpose one of the weaker solutions of atropine, duboisine, etc., applied once, every one, two, or three days, is sufficient; cocaine not being well suited to this purpose on account of the evanescence of its action, and its inability to maintain dilatation against a strong light.

To maintain dilatation of the pupil against a congested or inflamed iris, or *to break up iritic adhesions, use the strongest mydriatic solutions* that need ever be applied to the eye. For such purposes one may employ the following, or even stronger solutions :—

Atropine sulphate, gr. j. water f ℥ j, or 1 to 60;
Duboisine sulphate, gr. j, " f ℥ ij, or 1 to 120.

Here we wish to develop the maximum effect of the drug upon the iris, and the instillations should be repeated at short intervals, say every half-hour or hour, until the pupil becomes fully dilated, or the symptoms of mydriatic intoxication become so pronounced that the use of the drug can be pressed no futher.

To get the maximum effect on the eye with the least absorption of the drug into the general system, as little of it as possible must be permitted to enter the tear passages, and find its way to the mucous surfaces of the nose and throat. To hinder such escape of the solution, the nasal extremities of the lids, including the canaliculi, may, as is often recommended, be firmly pressed against the nasal process of the superior maxilla. But I think it is much more effective to evert the lachrymal puncta, and keep in contact with the adjoining surface a bit of absorbent cotton. To aid in securing the same object, it is important to use a very strong solution of the drug, and place but a single small drop upon the cornea at once. I use a dropper with a small end, that will give less than a half-minim of water to the drop. When larger amounts of fluid are instilled a greater proportion runs off with the tears. When both eyes are affected with iritis, it is sometimes wise to concentrate the mydriatic attack upon one of them one day, and upon the other the next; in order to get the full force of the drug in tearing loose adhesions. The power of atropine or duboisine in this direction may be somewhat supplemented by the simultaneous use of cocaine; though on account of its effect on the cornea I would not continue the applications of cocaine more than a few hours, nor repeat them before the second or third day.

All the mydriatics mentioned, except cocaine, seem to exert a direct influence over the nutritive processes of inflammation, which gives them great value in the treatment of many inflammatory affections of the eye. I will not now attempt to cover this field of their application, both because it is so extensive and because I do not feel that I can here speak so definitely. It may, however, be mentioned that, subject to the contraindication of glaucoma, and aside from their influence on iritic adhesions, the most obvious indication for the use of a mydriatic in an inflammatory disease of the

eye is the presence of a pericorneal zone of redness, either partial or complete. In proportion as the inflammation is plastic in character will be the benefit derived. And for its direct influence on the nutrition of the part, the largest amount of the mydriatic does not always give the best result.

It may seem that I have busied myself with the discussion of very small details; but ignorance of details nullifies the value of more pretentious knowledge, and nowhere more frequently than in the application of mydriatics to the eye.

215 *South 17th Street.*

SUPPURATIVE PERITONITIS; OPENING, WASHING, AND SPONGING THE PERITONEUM; RECOVERY.

At the meeting of the Clinical Society of London, on October 28, Mr. Richard Barwell read notes of this case. The man, æt. 42, accustomed to drink a good deal, was admitted into Charing Cross Hospital June 24, 1887. Six days previously he fell and struck the left lower part of the abdomen, but seemed very little hurt. Five days afterwards he, in stooping, felt severe pain in the lower part of the abdomen; he vomited and passed a little very dark-colored urine. (Absence or presence of blood could not be verified.) He went to bed, his abdomen swelled, he passed very little urine; vomited after, and sometimes without, taking food. On admission he was placed in a warm bath; while in it he passed what may, he thinks, have amounted to a wine-glassful of urine. At 2 p.m. Mr. Barwell found him with pinched, anxious countenance, pulse small, hard, and quick, and temperature 100.4°, dry skin, tongue somewhat coated, vomiting, abdomen slightly tender, save in left iliac region, much swollen, very tympanitic quite down to the pubes; tapping it produced a peculiar thrill not like that of flatulence. A No. 12 catheter brought away no urine, even though pressed far back, but the instrument when withdrawn was full of urine deeply stained with blood. June 25. On three occasions 10 ounces of urine had been passed, at first with blood, the last sample free of blood, but slightly albuminous, specific gravity 1022; temperature 89°; pulse 130; abdomen more distended. It being evident that the man had a bad type of acute peritonitis, Mr. Barwell opened the abdomen in the middle line below the umbilicus. A large quantity of gas, not of feculent odor, escaped. No rupture of any viscus was found, but in its lower part the peritoneum contained a quantity of thick pus. There were no adhesions; parts of the intestines were congested, and the membrane was somewhat thickened. Three sponges passed into the lower part of the cavity were withdrawn covered with tenacious flocculent pus. A smooth-nozzled glass funnel was then deeply introduced, and the part of the cavity washed out with 10 pints of distilled water, temperature 99°, bringing away quantities of pus and flocculi. After sponging, a second smaller washing and sponging was directed to the upper part. The abdomen was then sewn close without any drain. The whole operation, including the anæsthetic and dressing, lasted an hour. June 26. During the night and day the patient frequently vomited a brown fluid with darker concreta; pulse rather fuller, 110; abdomen scarcely distended, and tender only in immediate neighborhood of the wound. He was lying flat, save for a small pillow under the knees; said he was quite well, and wanted to go home. July 28. The vomiting slowly decreased during the night; the bowels acted rather copiously four times. The vomiting ceased and all symptoms passed rapidly away. The rest of the history was that of rapid convalescence, the man being very importunate in requesting to be discharged. In his remarks Mr. Barwell, referring to a paper by Mr. Hancock, claimed for Charing Cross Hospital the first conception of the idea of opening the peritoneum for acute peritonitis (*Lancet*, 1848, "Meeting of Medical Society"). He also pointed out that this operation had been performed fourteen times, though the operator had not always known what was the precise nature of the case and the circumstances had been very various, ulcers or rupture of some part of the intestinal tract, or of an ovarian cyst. He emphasized the impossibility of draining the lower part of the peritoneum through a wound in the front of the abdomen, and advised that no drainage-tube should be inserted immediately after operation, but that if distention recurred to remove the lower stiches and permit escape. The presence of a tube, which could not in that position act as a drain, might be injurious rather than beneficial. In the female, drainage *per vaginam* would probably be the most valuable treatment as the best wash, since disinfectant lotions, strong enough to act as germicides, could not be brought into contact with any large surface of the peritoneum without injurious effects, local, systemic, or both.—*British Medical Journal*, November 5, 1887.

THE TREATMENT OF OPHTHALMIA NEONATORUM.

Mules, of the Manchester Eye Hospital, in a Prize Essay published in the *Medical Chronicle* for January, 1888, describes the following treatment:

The mother or nurse should first wash the eyes in warm water to remove the secretion and free the lids. The surgeon should be seated in a convenient chair, with a folded towel across his knees and with medical appliances within reach of his hand. These appliances are: (1) A plentiful supply of pieces of clean rag; (2) solutions of argenti. nit., 5 grs. to oz., and 10 grs. to 1 oz.; (3) vessel of clean water; (4) two camel's-hair pencils to apply the solutions and wash the excess of fluid away; (5) a bottle of eserine, 5 grs. to 1 oz., and dropper; (6) lid elevators. He then receives the head between his knees, yet

supported by the towel. The nurse, tucking the child's legs under her left arm, supports the body on her raised knee, holds the child's hands with one hand, and has the other at liberty to assist the surgeon. The surgeon first proceeds to examine the condition of the cornea by gently raising the upper lid with his finger—if there is any difficulty in this manœuvre he uses an elevator. A bent hair-pin often answers admirably. He next everts the lids, wipes them dry, paints them with the silver solution of the required strength, taking special care to get the *back folds of the conjunctiva*, and washing off the excess of solution with clean water, carefully replaces the lid by drawing them downward and away from the globe. This process is repeated by the surgeon every morning until the disease is arrested, his object being to produce a slight eschar, which either destroys the micro-organisms or prevents their multiplication. The effect lasts about twelve hours. In severe cases the solutions can be re-applied at night. However careful a surgeon may be his efforts are of little avail unless he is ably seconded by the nurse. Her duties are—to prevent the re-collection of pus, by constantly opening the lids and wiping the matter away with clean rags; to wash the conjunctivæ with a weak alum or boracic acid solution, 3 grs. to 1 oz.; to anoint the lid margin with cerate to prevent adherence, and to combat the feverish restlessness by fresh air and careful attention to diet.

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A NEW TREATMENT FOR BOILS AND CARBUNCLES.

The ordinary methods of treating boils and carbuncles by a "free, bold incision" often leads to good results, but the anticipation of this cutting is always such a terror to patients that surgeons would most gladly use a milder treatment, if certain that cure would follow. M. Verneuil, with an experience of half a century, has noticed with interest the different phases through which the treatment of these painful maladies has passed. Following in the footsteps of his teachers, he freely used the knife, to give it up only when the thermo cautery came into use. Cauterization, with subsequent application of carbolated dressings, gave him such good results that his rule was to use the knife only exceptionally, in the gravest cases, and then to use it unsparingly. In 1883 he observed a case which made him reflect and change his mode of treatment. Since that time he has confined his treatment absolutely to the application of carbolated powders, and these for all kinds of boils and carbuncles, large, small, diabetic, painful or indolent, closed or open, and covered with gangrene. For the small and medium-sized carbuncles, this method of treatment has been very successful, without pain or extension of the inflammation.

THE CANCER-BACILLUS, AND THE SARCOMA-BACILLUS.

The New York Medical Record of February 25th says:

Dr. Carl Francke, assistant to professor Von Ziemssen at the Clinical Institute, at Munich, reports to the Munich Society of Morphology and Physiology that he has confirmed the discovery of Scheuerlen regarding the bacillus of cancer. He has also discovered, himself, a bacillus of sarcoma (*Munch. Med. Wochenschr*).

Dr. Francke's experiments began last November, and he had already seen and demonstrated the bacillus of sarcoma when Scheuerlen's discovery was announced. Francke has examined nine cancers since then, and in all has observed the carcinoma-bacillus and its spores essentially as described by Scheuerlen.

His observation on the sarcoma-bacillus were based on the examination of three cases. In each instance he found a bacillus which resembled the cancer-bacillus very closely only it was thinner and longer. The cancer-bacillus are, on the average, 2 micro-millimetres long, and 0.4 micro-millimetre broad, while the sarcoma bacillus measures 3 to 4 by 0.4 micro-millimetres. The sarcomo-spores also resemble those of carcinoma, except that they are a little larger and have a sharply contoured pole. The two organisms develop alike in culture-media, producing a reddish-brown pigment. Inoculations of the pure cultures of the sarcoma-bacillus have produced no result as yet, but Francke thinks that four weeks is too short a time for sarcoma to develop, and he will make another report later.

PERSONAL.

Dr. McClure, Medical Superintendent of the Montreal General Hospital, has tendered his resignation, to take effect on the 1st of May.

Dr. Geralde Howard, son of Dr. R. P. Howard, Dean of the Faculty of Medicine, McGill University, is to be married on the 8th of March to the adopted daughter of Sir Donald Smith of Montreal. Dr. Geralde Howard's many friends will congratulate him on obtaining as his partner in life a lady so highly esteemed by all who have the pleasure of her acquaintance.

Dr. C. A. Wood (C.M., M.D., Bishop's College 1877), who so ably filled for several years the Chair of Pathology in the Medical Faculty of his Alma Mater on the completion of his course for this session, tendered his resignation, which has been accepted with deep regret. Dr. Wood had gained a most extensive but a very laborious practice, and it was telling seriously on his health. It was therefore necessary for him to cease his work for a time. He early last month proceeded to New York, where in attendance at the Polyclinics, he devoted his time in special investigation. On the 22nd of this month, Dr. Wood sailed from New York, accompanied by his wife, for Hamburgh from whence he will proceed to Berlin. It is his intention to remain abroad two years, during which time he will devote himself to special work, which he will follow in the future. His friends have every reason to believe that he will return to Montreal, and practice his specialty. Dr. Wood was admittedly one of Montreal's brightest medical men, so that his departure was witnessed with regret, and his return will be hailed with enthusiasm. In this issue we publish a letter by Dr. Wood from New York, and our pages will often be enriched with communications from Berlin.

REVIEW.

A synopsis of the Physiological Action of Medicines, prepared for the special use of the Students of the Medical Department of the University of Pennsylvania. By Louis Stare, M.D., and Jas. B. Walker, M.D. Third edition. Philadelphia. P. Blakiston, Son & Co., 1888.

One can hardly imagine why it took three authors to produce this little book of seventy-two pages; but whatever the reason they have succeeded admirably. In a very small compass they have compressed a vast amount of information on the physiological action of medicines, and have thus rendered medical students their debtors. We advise every student to purchase a copy.

Nasal Polypus, with Neuralgia; Hay Fever and Asthma in relation to Ethmoditis. By Edward Woakes, M.D., London, Senior Aural Surgeon, and Lecturer on Diseases of the Ear at London Hospital, Surgeon to the London throat Hospital, with illustrations, Philadelphia, P. Blakiston, Son & Co., 1888. Price, $1.25.

We have examined this work pretty thoroughly, and are satisfied that it is a very important addition to the literature of the subject. He elucidates an entirely new theory as to the origin of Nasal Polypi, if facts which have been patent to his eye can be designated theory. It is a volume which is sure to attract attention, and its perusal will whet the reader's appetite for the fuller volume, which is in course of preparation. It should be very carefully studied by all nasal specialists.

JOSEF HOFMANN.

This is the name of the marvelous boy pianist, who has been creating such a *furore* in New York and Boston, and other places, since last summer. His exact age we cannot give, but it is somewhat in the neighborhood of eight years, and the amount of work he has performed during the last nine months has been prodigious. Almost daily, and almost nightly also, he has performed before large audiences, amid great excitement and corresponding nerve strain. Playing the most difficult compositions of the great masters, improvising and leading orchestres, there has developed in him, as the result of this increased mental activity, a condition of nervous prostration, which threatens to blight a most wonderful genius. According to the New York *Medical Record*, a consultation of medical men has taken place, and the result is that the little fellow has been ordered complete rest. It is to be hoped that this will have the desired effect, but it is a matter of sincere regret that the little fellow has been as it were forced to the very brink of destruction. No matter what the character of the strain, it should fall but gently on a growing child.

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VALEDICTORY ADDRESS ON BEHALF OF THE PROFESSORS, BY A. PROUDFOOT, M.D., PROFESSOR OF OPHTHALMOLOGY.

GENTLEMEN GRADUATES:—It is my privilege on this occasion to address to you a few words, and I embrace the opportunity with pleasure.

GENTLEMEN:—You have to-day reached the goal for which you have been striving for four long years; the days of your apprenticeship are over, and you will henceforth be at liberty to put into practice the knowledge which you have acquired.

During your college career, it has been the earnest endeavor of each of your professors, to impart to you as thorough a knowledge of your profession as time and circumstances would permit; and the high standing which some of you have obtained in the examinations through which you have just past is an evidence that their efforts have not been in vain. And believe me, gentlemen, when I tell you, that your professors will follow your future course through life with an anxious nterest, as the success of our graduates will determine the continued success of our college.

It has been said that to begin right is half the battle. I wish therefore to give you a few hints upon the subject of *medical ethics*, with which it is the duty of every physician to familiarize himself at the very beginning of his professional career, and never under any circumstances to violate them when brought in contact with members of the regular profession.

A physician should ever be ready to obey the calls of the sick, and his mind should be endued with the greatness of his mission and the responsibility he ever incurs in its discharge. He should therefore reflect upon the importance of his office, remembering that the ease, health and perhaps the lives of his patients are dependent upon his attention, fidelity and skill. And in his deportment he should study to unite tenderness with firmness, and condescension with authority, so as to inspire the minds of his patients with respect, confidence and gratitude.

Every case committed to his care should be treated with attention and humanity, reasonable allowance being made for the mental weakness and caprices of the sick. The familiar and confidential intercourse to which the physician is admitted in his professional visits should be used with discretion; and the strictest regard to fidelity and honor. And none of the privacies of personal or domestic life should ever be divulged, even after his professional services have ceased. This rule, however, noes not apply in cases of smallpox, diphtheria, scarlet fever, or other contagious or infec tious diseases, which he is compelled by law to report to the Sanitary Authorities.

The physician should visit his patients frequently, in order that he may gain a perfect knowledge of their diseases, and be able to meet promptly any change or complication that may arise; he will thus secure the confidence of his patients. Too frequent visiting should, however, be avoided, as they may lay the physician open to the suspicion of interested motives.

Whilst a physician should not be too hasty in forming a gloomy prognosis or in magnifying the importance of his services, it is his imperative duty to warn the friends when danger really exists. And as it is the special mission of the physician to minister hope and comfort to the sick, he should avoid most scrupulously every word or act which may tend to discourage or depress the spirits of his patient. Even where the case is incurable, the physician should not abandon his patient, as he may relieve pain and other symptoms, and thus contribute to his comfort, and diminish the distress and anxiety of his friends.

In cases of real doubt or difficulty consultations should be asked for, as they strengthen the hands of the physician in attendance, and increase the confidence of the patient. I must here remind you that when an hour has been fixed for a consultation, the greatest punctuality must be observed. But circumstances may arise, which will prevent a physician from keeping his appointment, in which case he should, if possible, notify his confrère, and a fresh appointment can be made.

In consultations the attending physician must first examine his patient, after which the consulting physician should have an opportunity of doing so, and of asking such questions as he may deem necessary to satisfy himself, as to the true nature of the case. No statement or discussion should take place before the patient or his friends; but both physicians should retire to a separate room, and after exchanging views upon the case, the attending physician should then communicate the result of their deliberations to the patient and his friends, and give all directions for the further treatment of the case.

The responsibility must then be equally divided between the medical attendants, who share alike the blame of failure or the credit of success. The consulting physician should conscientiously maintain the attending physician in the confidence and good opinion of the family into which he is called, as any attempt on his part, by word or deed, to ingratiate himself and basely supplant the medical attendant, would be most dishonest, and unworthy any member of an honorable profession. And, gentlemen, there is no profession from the members of which there is required a higher standard of morality than the medical. Let therefore your habits be regular; do not devote too much time to pleasure, politics or any other pursuit which may incapacitate you for the faithful performance of your professional duties. And here let me warn you against the far too prevalent habits of "*nipping and smoking.*" It is incumbent upon the members of our profession to be temperate in all things, with eyes clear, hands steady and brain unclouded, ready to act on any emergency, where the life of a fellow-creature may be in danger.

Can you imagine anything more distasteful to a delicate and refined lady than to have a physician ushered into her presence, whose breath is redolent of the fumes of Old Rye, and whose clothes are reeking with the odor of stale tobacco? In these degenerate days, I know that it is useless for me to tell you not to smoke. I will therefore content myself with earnestly advising you to reserve your pipe or cigar until after you have made your daily round of visits. And, gentlemen, one word more and I have finished.

Do not get discouraged if practice does not come quickly, and be led to make the fatal mistake of having flaming advertisements or reports of operations and cases inserted in the daily papers. These are the common practices of the quack or empiric, and are considered discreditable to members of the regular profession. Your time can be profitably spent in making careful notes of every case that may come under your observation; from the daily papers you can post yourself upon the news of the day, and from medical journals, for one or two of which I would advise you to subscribe, you will be able to keep yourselves *au fait* in all matters more closely connected with your profession.

And now, gentlemen, in the name of your professors, I bid you good-bye and Godspeed.

VALEDICTORY ADDRESS ON BEHALF OF THE GRADUATING CLASS.

By Dr. S. A. A. Thomas.

Worthy Chancellor, Dear Professors, Ladies and Gentlemen.

I regret that I have to express my thoughts in a language for which I have much admiration, but which, owing to my early training, I speak but imperfectly; however, trusting to your generosity and to your kindness, I have accepted the honor of addressing you this day in behalf of the graduating class, although this could have been better done by any of my confrères.

At last we have completed our 4 years of student's life, rather of college life,—for the medical

man, in order to keep pace with the times, must remain a student for ever—and have had conferred upon us the often coveted degree of C. M., M. D. Such is the reward of our energy and perseverance. The price is great, the value thereof cannot be overestimated. As our Alma Mater has thought us worthy of admission into the ranks of her graduates, let us, fellow-graduates, prove ourselves worthy sons of such a grand University.

Indeed, this is a happy day for us, for, within these walls, we see the face of many and many friends who have gathered to congratulate us and to rejoice with us. How auspicious the future, surely, with so many freinds to stand by us, we cannot help but succeed in our noble profession. We, the graduates, thank you, ladies and gentlemen, to have come in such a great number to witness this our happiest day.

Although our college days are over, at the feet of our professors we have learned to reverence the medical profession, and will ever endeavor to promote its welfare at all times.

But as this is a day of gladness and of jubilation and of mutual congratulations, it is also a day of sadness and of sorrow. To-day, we press—doubtless, many of us—the hand of some good and faithful friends whom we shall never see again. To-day, we have to bid farewell to our dear professors, with whom we have been so intimately connected during the past 4 years; ever we have found them sympathisers, friends and true gentlemen. In parting with you, dear professors, we heartily thank you for the knowledge you have imparted unto us, for your kindness in and out of the lecture room; we gladly bear testimony to your able teaching, and to the painstaking care you ever employed to fit us to answer the calls of suffering humanity.

We recognize your efforts to promote true medical education, both out and in college. True it is we, the class of 88, grumbled a great deal when you made the examinations in ophthalmology and in diseases of children compulsory, but to-day we forgive you, for we know that it was your enthusiasm in behalf of the promotion of medical education, your aim at making Bishop's the leading school, that caused you to take such a step.

By the way, ladies and gentlemen, should any one of you—I trust, that you may never need to—have something wrong with his or her eye, you need not call in a specialist if you are in the vicinity of a Bishop's graduate, for every man graduating from our Alma Mater ought to be capable to perform the most difficult operations.

Our college life has not been an unhappy one; although we had to study hard, yet we had occasionally our recreations, and such recreations as medicos alone know how to take.

I need not, ladies and gentlemen, describe to you the different stages through which we passed during the last few days,—I refer to the examinations. I would not for a great deal have to undergo the same strain as I did during the last week. To the professor the day of examinations seems to be a wedding-day; see him coming in, all smiles and radiant with joy. To the candidate, such a day is more like a funeral than anything else, see him and tell me if I am mistaken; his face anxious, expression doubtful, countenance somewhat cachetic, his eye sunken and lifeless, pulse rapid and wiry, at times there is dysphagia and aphonia, especially when sitting before examination papers, and the questions do not, at first sight, appear to be practical or of vital importance. In short, ladies and gentlemen, the candidate looks more like a revivalist, a brother to Sam Jones and Sam Small. Indeed! those have been lonely and long hours; but to-day we look back with joy and satisfaction over our trials.

All is well that ends well: we are through now, and we wish our fellow-students, whom we leave behind us, every success in their coming years; may they prove themselves an honor to our Alma Mater.

We thank our professor, Dr. Proudfoot, for the sound and practical advice contained in his valedictory on behalf of the Faculty; it will be our aim to abide by it.

In all probability, this is the last time we meet together; the calls of interest, the appeals of ambition, the demand of our families will cause our paths in life to be widely divergent.

Some of us may sleep beneath the sands of Africa and some beneath the ice of Alaska some may find a resting place in the bosom of the ocean, whilst some we trust will remain in this dear old city of Montreal; but wherever we may go, let us cherish the recollections of our Alma Mater, and let us enshrine our student's association with the flowers of everlasting friendship and true devotion.

In saying farewell, we wish our Professors every success, and we hope and trust that they may be long spared to communicate their sound and

practical teaching. Farewell to our former fellow students, whom we leave behind; we expect much from you," and we trust that we shall not be disappointed in our expectations of distinguishing yourselves in your coming examinations.

Ladies and Gentlemen, once more thank you for your attendance this afternoon, and to one and all, in behalf of the class of '88, I bid a hearty farewell.

Society Proceedings.

MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

Stated Meeting, Dec. 9th, 1887 (continued).

Removal of Eight Calculi.—Dr. RODDICK exhibited eight large calculi which he had removed from an old gentleman last summer by the lateral operation. The stones weighed 2½ ozs. At the time of the operation the patient was in very bad health and there was much pus in the urine. He died some two days after the operation of uræmia. Although no post-mortem was allowed, there is little doubt that the kidneys were very seriously affected. In this case the supra-pubic operation was contemplated, but the lateral was preferred on account of the small capacity of the bladder, which would only hold 2½ oz. of water.

Stated Meeting, December 23rd, 1887.

JAMES PERRIGO, M.D., PRESIDENT, IN THE CHAIR.

PATHOLOGICAL SPECIMENS.

Tuberculous Knee-Joint.—Dr. BELL exhibited a leg recently amputated at the junction of the middle and upper thirds, for tuberculosis of the knee-joint. A longitudinal section was made to show the condition of the joint. Dr. B. gave the following history:

P. F., aged 30, a pale, emaciated man, was admitted to hospital on the 19th of December with the following history: He began to suffer from a painful and swollen knee twelve years ago, which is vaguely attributed to injury. The knee has grown steadily worse up to the present, incapacitating him for work for the greater part of the time. For about four years he has been confined to his bed with it. Two years ago he was treated by a quack, who blistered the leg in large patches above and below the knee, and then applied salt pork to the abraded surfaces. These sores never healed, and an attack of erysipelas, which occurred a few months ago, caused extensive burrowing of pus both in the thigh and calf. On admission, the patient's general condition and the condition of the soft parts in the leg and lower third of the thigh were very unpromising indeed. On this account the idea of excising the knee-joint was abandoned, and the thigh amputated at the junction of the upper and middle thirds (it being impossible to secure sufficient healthy tissue for flaps at a lower point). The progress of the patient was uninterrupted after amputation, and he was discharged at the end of three weeks with a small sinus still open at the inner angle of the flap. The knee-joint, when sawn through from above downwards, although showing extensive and widely distributed disease, was yet in a condition suitable for resection, had the patient's general health been better and the soft parts in the leg and thigh less extensively destroyed.

Dr. RODDICK thought that as far as the condition of the joint itself was concerned, it was a typical case for excision, but the condition of the sof parts necessitated amputation.

Dr. SHEPHERD saw the case three months before; did not think there was pus in the joint at that time, and was struck at the time of the operation with the amount of suppuration in the soft parts about the joint. He thought the amputation might with safety have been made a little lower.

Tubing in Diphtheria.—Dr. JOHNSTON showed the respiratory organs in a case of diphtheria which had proved fatal two days after the performance of intubation, the tube being shown *in situ*. The lungs were for the most part in a state of acute emphysema, but showed a few small patches of collapse with commencing pneumonia. The tube was seen *in situ*, and was not obstructed. The membrane had extended into the first bronchi. A slight diphtheritic exudation was seen over the tonsils. The tube had produced no necrosis of the parts with which it lay in contact.

Dr. MAJOR stated that the patient, a girl aged 3 years, had been temporarily relieved by the use of the tube, but had died two days later.

Dr. GEO. ROSS had observed shortly before death that physical signs of severe bronchitis had existed.

Dr. MAJOR, in answer to Dr. Roddick, said that the longest time he had left a tube in the larynx was ten days; there was only slight erosion of one ventricular band, but no ulceration. Tubes are very liable to be coughed up.

Angioma of the Liver.—Dr. JOHNSTON also exhibited a microscopic section from a cavernous angioma he had found in an amyloid liver. The walls of the cavernous spaces were not affected by the amyloid change. The case was of interest in connection with the question as to whether the angioma arose in connection with the hepatic artery or the portal vein. This point had been left obscure, as attempts to inject angiomata by these vessels had led to contradictory results. As amyloid affects primarily the branches of the hepatic artery, this, the angioma being practically unaffected, would in this case be solely of portal origin. The minute spots of amyloid change in it being accounted for by the fact that the hepatic artery nourishes all the structures of the liver.

Physiological and Pathological Reversion.—Dr. T.W. MILLS read a paper on this subject.

Dr. SHEPHERD referred to the extension of the principles of evolution to all branches of science. He has long been a supporter of evolution from a morphological point of view, and he believed the physiological aspect as developed by Dr. Mills affords quite as broad a field for investigation. Just as the development of the embryo is the compressed history of the development of the individual, so Dr. Mills' paper shows that death tells us the tale of development backwards.

Dr. STEWART, referring to Dr. Mills' remarks on the dissolution of the circulation, said that in old age a man dies along the track of the circulation Some one says that death from old age was the evolution of dissolution.

Laboratory Notes on Papoid Digestion.—Dr. R. RUTTAN read a short paper on the above subject, which will be found in the February number of this JOURNAL.

Dr. GEO. ROSS said he had been using the drug for some time in the hospital with satisfactory results in diphtheria. One of the marked effects of the application of the solution was the entire suppression of the characteristic fætor of the disease. He used a 5 per cent. solution, and the atmosphere of the ward was kept quite fresh and sweet. It certainly seems to dissolve the membrane.

Dr. STEWART suggested its use as an escharotic for the removal of tuberculous infiltrations.

Dr. GODFREY said he was now using a 5 per cent. solution to destroy a hard scirrhus cancer of the heart, and so far was thoroughly satisfied with its action.

Abdominal section for Sarcoma.—Dr. W. GARDNER exhibited specimens from a case of sarcoma of the uterus and ovaries on which he had operated. Rapid recurrence took place with death on the seventh week. Dr. Gardner gave the following account of the case and the operation:

The patient was sent in by Dr. T. L. Brown, of Melbourne, who was consulted only a few days previously for some bladder symptoms, when he recognized the rapidly growing pelvic and abdominal tumor. She was a fair-haired, light complexioned, vivacious, and very precocious child, always delicate. Menstruation had not appeared, and the only evidence of approaching puberty was scanty pubic hair. The tumor evidently sprung from the pelvis but had risen to the abdomen, was nodular and scarcely moveable. Though recognizing its probably malignant nature, operation was decided on. The growth was a friable mass, with a few cysts adherent to omentum, intestines, posterior surface of bladder, and everything else in the pelvis. Neither uterus nor ovaries were distinguishable. The cavity was washed out and a drainage-tube inserted. Recovery was scarcely clouded by any symptom of importance. Appetite was regained to a considerable extent, but it was not long before a return of the growth was perceptible, and it went on with mushroom like rapidity till the abdomen was greatly distended, and she died from exhaustion. The tumor was examined by Dr. Johnston and pronounced by him to be sarcoma.

Stated Meeting, January 6th, 1888.

T. G. RODDICK, M. D., IN THE CHAIR.

PATHOLOGICAL SPECIMENS.

Dislocation of the Sixth Cervical Vertebra.—Dr. HUTCHISON exhibited the dislocaed cervical vertebra, and gave the following history:—

H. C., aged 37 years, a brakeman on G.T.R., while walking on top of a freight car, which was running at the rate of three miles an hour, fell between two cars, the rear one throwing him clear off the rails; he fell on his shoulders. The accident took place at 5 p.m., Oct. 29th, 1887. He was removed to the van, and brought to Montreal, —a distance of forty miles. During the journey he suffered a great deal of pain in both arms; did

not lose consciousness. I visited him at 8:30 o'clock the same evening, and found him conscious, paraplegic with partial paralysis of arms. The arms were thrown at an angle to the body, causing great pain on any attempt being made to restore them to sides. There was preternatural mobility and crepitus in region of fifth cervical vertebra. The vertebral line was thrown forward above the seat of injury; pupils, pulse, temperature and respiration normal. Assisted by Dr. Kinloch, extension was practiced without an anæsthetic, which relieved the pain in arms, and left patient in a comfortable position.

Oct. 30th, 10 *a.m.*—Patient slept several hours during night, suffered no pain. Noticed slight contraction of pupils and slight stertorous breathing. Urine drawn off with catheter. 4 p.m.—Stertor increasing; temperature normal; partially comatose. 7 p.m.—Death ensued twenty-six hours after accident; during twenty-two and a half hours of that time the patient was perfectly conscious. From the faint crepitus obtained the case was thought to be one of fracture.

Dr. RODDICK referred to a similar case of cervical dislocation that was successfully treated by extension by the late Dr. G. W. Campbell. Dr. R. had practiced extension in several cases, but unsuccessfully.

Anencephalic Monster.—Dr. GURD exhibited an anencephalic monster, showing a membranous sac filled with fluid corresponding to the cranium. This fœtus appeared to be about at the sixth month, and was dead at birth. The mother, a somewhat delicate patient, had suffered a severe fright early in gestation.

Dr. MILLS said it illustrated his paper read at the previous meeting. The development of this fœtus, so far as the brain is concerned, seems to have been arrested in a stage of its existence corresponding somewhat to that of the lowest vertebrates.

Drs. Wyatt Johnston, J. C. Cameron and Shepherd were appointed to examine the fœtus and to report at a subsequent meeting.

A case of Nævus.—Dr. RODDICK exhibited a foot removed by Syne's amputation. The patient, a woman, 30 years of age, had a nævus on the dorsum of the foot, which grew very slowly until she married, some ten years ago, when with each pregnancy it increased considerably until it had assumed enormous dimensions. The tissues of the foot, including all the toes, had become hickened, resembling elephantiasis. Especially since the birth of the last child, three months ago the increase in growth was very marked. Lately quite an extensive slough, amounting almost to gangrene, had formed on two of the affected toes. This caused troublesome and often alarming hemorrhage. Owing to the thickened elephantive condition of the tissues of the foot amputation was deemed the only feasible procedure. The posterior tibial artery and nerve were found enlarged to three or four times their normal size. The glands in the groin were also very much enlarged at the time of operation.

Stated Meeting, January 20th, 1888.

T. G. RODDICK, M.D., IN THE CHAIR.

PATHOLOGICAL SPECIMENS.

Dr. G. ARMSTRONG exhibited the brains from two cases of cerebral disease.

(1) *A case of Apoplexy.*—The first brain shown was removed from a man seven hours after death, occurring at the age of 56 years, from apoplexy. The patient was an Englishman, enjoyed robust health, but since coming to Canada has been stronger than he was at home. For a fortnight before death he had been at home, complaining of weakness, anorexia, a little frontal headache, and rheumatic pains about arms, legs and back. No elevation of temperature or acceleration of pulse; tongue coated; bowels moved by eating a little fruit. On the morning of the day of his death he awoke, feeling particularly bright and cheerful. Expressed himself as feeling stronger, and thought he would be able to return to office in a few days. About 8 a.m. he went to the store and suddenly called for help, sank on to the floor unconscious, and in one hour was dead, never having regained consciousness. Dr. Johnston kindly performed the autopsy for me. We found, on removing skull-cap, a large clot in right frontal region, just beneath the arachnoid. On removing the brain the ventricles were found distended with blood, death having resulted from the blood passing along the iter into the fourth ventricle, and thus producing pressure sufficient to paralyse the centres of organic life. On closer examination the blood was found to come from a rupture of a vessel of the right corpus striatum. Dr. Johnston afterwards found that the vessels were fattily degenerated. Heart and kidneys were examined and found normal.

(2) *Cerebral Syphilis.*—The second brain shown was removed from a man who died at the age of 62. Dr. Armstrong gave the following account of the case. The patient claims to have enjoyed good health up to June, 1885. At this time while walking to his office one morning, he fell down but says he retained consciousness all the time. Some men passing helped him up, and he went on to the office, but only remained a short time and then walked home again. I saw him soon afterwards, when I found him quite rational. There was present no paralysis of motion or sensation. He told me that for some time his appetite had been poor, and he did not enjoy his pipe as much as usual. For the past two years he had suffered from frequent micturition, and had an enlarged prostate. After he had micturated I drew off 10 ounces of slightly turbid urine with the catheter. Urine contained a considerable quantity of pus; reaction acid. No headache or dimness of vision. On the 14th November, 1885, when dressing, he fell suddenly to the floor, but did not lose consciousness. When his wife picked him up she thought he had no power in his limbs; but when I saw him a few hours later I could detect no paralysis of motion or sensation, but he was partially aphasic. He could answer questions correctly and could speak in short sentences, but stopped in the middle of a long sentence. Although previously a good penman, his present scroll was illegible. A peculiar subjective symptom at this time was his hearing pleasant music, especially in the left side of his head. He rather enjoyed listening to it. All the parts were carried correctly along together. The treatment at this time was Hg. and large doses of Pot. Iod. His condition improved somewhat, but aphasia never entirely disappeared. About six week ago he became suddenly hemiplegic on the right side, death finally resulting from exhaustion and septic poisoning from large gangrenous bedsores. Dr. Johnston kindly performed the autopsy for me. We found a large gumma occupying the third left frontal convolution, and a patch of softening extending almost quite across the left internal capsule, due probably, Dr. Johnston thinks, to an embolus. It is very satisfactory to find such well marked lesions, which accounts so well for the symptoms from which the man died.

Discussion.—Dr. Buller thought that the tumor must have produced double optic neuritis. Larger doses of potassium iodide, 40 to 60 grains three times a day, might have produced very beneficial results in this case. Referring to the subjective symptoms of the patient, Dr. B. said these were often caused by perturbation of the nerve centres, and were the usual early symptoms of insanity.

Dr. TRENHOLME strongly advocated the administration of large doses of iodide of potassium in cerebral syphilis.

Dr. RODDICK could not understand how the wife could have been inoculated by the husband, as he had tertiary syphilis.

Dr. ARMSTRONG, in reply, stated that the wife had all the symptoms of secondary syphilis about the time of the husband's attack. In answer to a question from Dr. Stewart, he said that the patient at no time exhibited facial paralysis or any other affection of the motor system.

Membranous Croup.—Dr. JOHNSTON exhibited for Dr. R. J. B. Howard a specimen which he thought an example of membranous croup as distinguished from diphtheria. The case was a sporadic one, and the disease primary in the larynx. No membrane had ever been seen in the fauces. Intubation had been performed by Dr. Major. The child had died suddenly two days later. At the autopsy the tube was found plugged with mucus. The larynx and traches showed a uniform sheathing of membrane which formed a cast of the trachea, but was nowhere adherent. The same condition was seen on the posterior surface of the epiglottis. The only spot where the membrane was adherent was just at the rima, on each side, over a small area a quarter of an inch square. The glands were not enlarged. On detaching the membrane the mucosa looked healthy; on microscopic examination it was found to show signs of proliferation, but was nowhere necrotic, except where membrane was adherent. In about 15 cases of diphtheria he had dissected in the last 3½ years, this was the only one which had appeared to bear out Virchow's distinction, that in croup a necrosis of the mucosa was not the initial lesion.

Discussion.—In reply to Dr. STEWART, Dr. JOHNSTON said the cause of death was suffocation, from the child having coughed up the tube. The constitutional symptoms were not marked.

Dr. J.A. MACDONALD believed that tracheotomy would have saved the patient's life.

Dr. SHEPHERD agreed with Dr. MacDonald that this was a case where tracheotomy was especially indicated. He could not see, clinically, any

great difference between membranous croup and diphtheria. He did not think diphtheria was an extremely infectious disease. When whole families were infected they were usually exposed to the same influences, such as unhealthy surroundings, bad drains, etc. He did not believe diphtheria was a modern disease. The so-called putrid sore throat of former days was probably diphtheria.

Dr. ARMSTRONG thought that there was a good clinical difference between these two diseases. True croup is not infectious, and there is no glandular enlargement or pharyngeal trouble accompanying the laryngeal affection.

Dr. TRENHOLME had seen many cases of true diphtheria where the membrane was confined to the larynx.

Dr. RODDICK said he was convinced that croup was one thing and diphtheria quite another. He remembered his first case of diphtheria, and it was widely different from any form of croup that preceded it. Undoubtedly the two diseases may occur together, as with tonsillitis and diphtheria. The line of distinction between the latter two diseases was much harder to draw.

Dr. BULLER believed the diseases were distinct. There is certainly a great difference between croupous and diphtheritic conjunctivitis. The plastic exudation of the former affection is accompanied by no severe constitutional symptoms, and the inflammation is confined to the surface. The diphtheritic is well defined and virulent; the whole lid becomes tense and brauny; the disease is destructive and deep-seated. The two processes are quite distinct in the conjunctiva, and it is difficult to see why they should not be so in other membranes.

Dr. BLACKADER said that the difference between pharyngeal and laryngeal diphtheria was due to differences in the nature of the submucous tissues; in the former the deeper tissues were not so closely attached. There was no difference in the miscroscopic appearance of croupous and diphtheritic membrane, but he believed it was, clinically, always safest to treat cases of membranous croup as diphtheria.

Trichorexis Nodosa.—Dr. SHEPHERD presented specimens of hair affected with the above disease taken from the moustache and eyebrows of a reddish-haired man, aged 35. The nodes on the hair were pigmented. The disease was first noticed two years ago, and that time the left side of the moustache only was affected. He found he could not grow hair on this side of his moustache beyond a certain length, so he shaved, and for the next four months the disease did not appear; but as the hair grew larger, it reappeared and spread to the right side of moustache as well. During the last two months the same disease had affected his eyebrows. Many of the hairs had several nodules and many were split at the ends. The patient is very certain the affection is not due to pulling at his moustache. Dr. Shepherd remarked that this was a very rare disease, and was characterised by having nodular swellings along the shaft of the hair, and the hair breaks easily, usually through one of the nodules. When broken the hair has a brush-like end. Trichorexis nodosa is not a parastic disease. It commonly affects the beard. The first symptoms noticed by patient are nodosities of the shaft of the hair and great brittleness, the part of fracture being at one of the nodules. Each hair has four or five of these nodes, which in people with reddish hair are pigmented. Nothing is known of the cause. Something is due to mechanical causes. By some the lesion is regarded as due to the gradual drying of the cortical substance, whilst others look upon it as an atrophy of the medulla occurring at different points, especially at the points where the nodes are. The hair roots are unchanged or slightly atrophied. Treatment is of no avail.

Clinical Notes.

TYPHOID FEVER.

The general method adopted at the Jefferson Hospital by Dr. Jas. C. Wilson, in the treatment of typhoid or enteric fever, is to give calomel (gr. viiss–x), and sodium bicarbonate (gr. x) at a single dose, at night, to be repeated once or twice, if the case is in its first week; if in the second week it is not repeated, and after the tenth day of the disease it is only administered if required by the state f the bowels. Diarrhœa, however, is not to be onsidered as a contra-indication to the mercurial. When the evacuations are excessive suppositories of opium (aq. extract gr. j) are used at night. Enemata of thin gruel may be occasionally resorted to for the relief of constipation. Cold sponging of the body is resorted to twice in the twenty-four hours as a routine measure; hyperpyrexia requires more frequent applications. Carbolic acid (gr. j) and tincture of iodine (gtt.ij) are given from the beginning, every two hours during the day; every three hours at night. Antipyrine (gr. x-xv) is given in a single dose when the temperature is over 104°. Alcohol is not necessarily a part of the treatment.

NON-EPILEPTIC CONVULSIONS.

The patient has been subject to these attacks for fifteen years. The eyes do not move in harmony, owing to paresis of one of the ocular muscles. The third, fourth, fifth and sixth nerves may be affected. There has probably been a lesion in the middle fossa of the skull, pressing upon these nerves. The lesion is most likely a coarse one. The seizures are symptomatic.

Treatment: iodide of sodium, one scruple, thrice daily.

Bartholow says that when pilocarpine, mercury, and iodide of potassium are given together, the action of the remedies taken is hastened, in gummata of the brain, and that he has obtained the most happy results therefrom.

Prof. Keyser considers this a most excellent antiphlogistic in iritis:

R Hydrargyri chloridi corrosivi, gr. 1-20
Extracti belladonnæ.....gr. 1-10 M.
In pill, ten minutes after each meal.

Before his clinic a few weeks ago, Prof. Goodman removed at one operation both breasts of a woman who has suffered severely for many years from interstitial lobular mastitis. Healing was by first intention, and the relief was complete.

In typhoid fever, Prof. Waugh has so far had good success with sulphocarbolate of zinc. A case was shown at his clinic which had come for treatment when suffering with fetid diarrhœa, high fever and hemorrhage from the bowels. Sulphocarbolate of zinc at once stopped the hemorrhages, removed the fetor from the stools, and reduced the temperature two degrees.

This makes the eighth case in which Prof. Waugh has tried this preparation with similar results.

Prof. Garretson is fond of this treatment for a sessile nasal polypus difficult to snare. He firmly constricts the polypus by means of an ordinary pair of dressing forceps, and allows them to hang on the growth till it sloughs off.

Try the following prescription to abort an attack of acute bronchitis. Prof. H. C. Wood says that it is very valuable:

R Potassii citratis..... ʒ j
Syrupi ipecacuanhæ .....f ʒ j
Succus limonis .....f ʒ j
Aquæ..... ..... ʒ iij
M. S.—Two teaspoonfuls every three hours.

For myalgia in a strong man, Prof Waugh gave

R Ammonii chloridi.....gr. xxx
Extracti belladonnæ..... .....gr. ½
M. S.—As a dose three times a day.

In the case of gastralgia, Dr. Pepper was led to suspect a malignant complication, because of the absence of free hydrochloric acid in the stomach six hours after meals, although the prominent symptoms of cancer of the stomach were absent.

Marked pulsation at the supra-sternal notch and over the innominate, inaortic insufficiency, should not be mistaken for aneurism. The beat is not expansile, as in aneurism. (*Osler*)

Dropsy does not occur in mitral insufficiency unless tricuspid insufficiency co-exists. (*Osler*).

When convulsions first occur after the thirtieth year, and usually epileptiform in character, suspicion points to cerebral tumor. (*Osler*).

Chills and fever, intermittent high temperature, and pus in urine, the urine being acid, point to pyelitis. (*Osler*).

Several cases of catarrhal jaundice yielded rapidly to the rectal injection of cold water, one or two quarts, at a temperature of from 50° to 60° F., as recommended by Krull.

TAPE WORM.

FROM PHILADELPHIA HOSPITAL.

The most successful way to get rid of him is by making him let go with his hooks. You must give him a narcotic remedy. We have one remedy that is the best for the armed worm, "tænia solium." Pomegranate I do not believe will ever fail, if properly applied. First clear out the canal. A purgative will not do this. Give remedies that liquefy, such as phosphate of soda, for a few days, then an active purge. The sodium phosphate must be given in the intervals of digestion, in decided doses. Then give:

Pomegranate, bark.....oz. iv;
Aq. font.....O ij.

Boil down to Oj, and give largely.

(*Bartholow*)

PERSISTENT HEADACHE.

This man is employed at the chemical works. There is no malady which gives as much trouble as headache. Guarana and such remedies are only good for a time, which speedily expires. The fifth nerve is affected in this case. The remedies that will cure this are few. Treatment: remedies that modify the functions of nutrition; change of occupation, habits, life; amount and quality of air in the sleeping-room, etc. The most valuable remedy is Donovan's solution; the biniodide has more power than any other to destroy germs in the alimentary canal, which we believe to cause intestinal disturbance in this case.

R Liq. arsenii et hydrarg. iod. gtt. iij, ter *in* die.

(*Bartholow.*)

FOR TONSILLITIS AND PHARYNGITIS.

Prof. Woodbury says that glycerites of tannic and of gallic acid are valuable preparations for the physician to have in his office, to serve as applications by brush or in the form of a spray to sore throat, inflamed tonsils, and the like, and should have been included in the last revision of the Pharmacopœia.

ERYSIPELAS TREATED WITH JABORANDI.

A poor woman was brought into the Medico-Chirurgical Hospital, with an enormous peri-typhlitic abscess, which had been neglected. It pointed in the groin and on the thigh. The whole surrounding region was erysipelatous, and the disease had also appeared on the face. Fluid extract of jaborandi was at once given by Prof. Waugh in doses of M xx every four hours; and even before the abscess was opened the erysipelas was under control. Enormous quantities of fœtid pus were evacuated from the abscess which had burrowed down into the glutei. The woman is being supported with peptonoids, wine, iron and quinine.

SODIUM CHLORIDE AS A PROPHYLACTIC AGAINST GERMS.

Prof. Woodbury advises a plentiful use of common salt in one's food, for he thinks that it acts as a preventive to zymotic diseases, and that when such diseases do come, they are much lighter in persons accustomed to using salt.

Have a thermometer in a sick-room, and see that the temperature is kept at from 70° to 75° Fahrenheit. Keep perfumes out of the sick-room; they soon have a stale odor and are offensive to the patient; keep visitors out, also; they are still more so.— Prof. Atkinson.

MORPHINE HABIT.

Dr. Wilson showed a case of morphine habit at the Philadelphia Hospital, January 14, 1888, in which one drachm of morphine only lasted the patient four or five days. The drug was originally prescribed by a physician for the relief of pain in hip-joint disease. In treating these cases it is indispensable that the physician himself administer any morphine required, as few nurses can resist the pitiful appeals of a victim of this habit while under treatment. The treatment must be largely moral in such cases.

SHOULDER DISLOCATION.

After several vain attempts to reduce a subglenoid luxation by rotation, Dr. Janney succeeded by making traction directly away from the shoulder. He declared that when the head of the humerus is lodged beneath the glenoid process of the scalpula, rotation is often useless.

LAPAROTOMY FOR GUNSHOT WOUND.

Dr. T. G. Morton performed a laparotomy on a man, on December 29, 1887. The case was one of gunshot wound. The bullet was found and extracted. Four days after the operation the patient was doing well.

Progress of Science.

THE TREATMENT OF EARLY PHTHISIS.

By J. Milner Fothergill, M. D.,

Physician to the City of London Hospital for Diseases of the Chest.

When the student has left the examination table and entered upon actual practice, he sees other phases of disease than those most familiar to him at the hospital—except in the out-patient department. The extraordinary and unusual cases upstairs, which absorb so much of the visiting physician's time, become so much more extraordinary and unusual that they reach vanishing point, while colds, catarrhs, exanthemata, indigestion, bronchitis, and phthisis constantly come before him. If he be a careful observer he will soon learn to detect the early onset of phthisis pulmonalis, and this will at once put the case on a line of appropriate treatment in order to prevent the case becoming worse, and, if possible, to inaugurate improvement; and the earlier this is done, the better the prospect of success.

Beyond the physical examination of the chest, the usual phenomena complained of are languor, loss of appetite, and, with that, loss of flesh, and night sweats. The burning of the palms and soles is not so common now as it used to be. As to the hectic flush on the cheeks—once the theme of poets and novelists—it is rarely found, at least among town-dwellers. "The red flush on his cheek told that consumption had already hoisted his bloody flag of 'No Surrender,'" wrote the author of "Guy Livingston." Rather now it is a pallid and greasy skin, which carries with it a grave prognosis. There is a loss of body weight with an increase of lowly connective tissue in the lungs (This it is which gives the physical signs of early phthisis. Impaired elasticity altering the character of the breath sounds; increased density affects the percussion note, and causes the lung to be a better conductor of sound), while the night sweats drain away the body salts. If the patient be a girl there may be menorrhagia; but far away more frequently there is amenorrhœa more or less complete.

How does such a case stand from a therapeutic point of view? There is (1) increased outgoings otherwise increased body expenditure. There is (2) defective body income. To meet these, to decrease the one, and to improve the other, is what is our plain duty.

Without forgetting that each case of phthisis has its own individual characteristics, which must be allowed for in each case, some useful, broad rules may be laid down. To my mind the first matter to be looked to is the "outgoings." No one entertains any misgivings about arresting a diarrhœa, which obviously weakens the body-powers. If there be vomiting, the necessity for

quelling it is patent to all. Where the patient is a woman it is well to lessen the catemenial loss and so conserve the powers. But in early phthisis menorrhagia is rare. Rather the system cuts down, or altogether cuts off a discharge to which it is unequal, and the return of the menses is hailed by all as a trustworthy indication of gathering power. But there is a discharge very common in early phthisis too little regarded, and that is leucorrhœa. This drain is apt to fasten on a weak organism and to cling to it tenaciously. Yet it is readily amenable to treatment—if the patient can be got to do as told. There is, however, a deep-rooted aversion to the use of vaginal injections among British women—at least such has been my personal experience.

One other outgoing there is remaining to be considered, and that is the justly dreaded night sweats. In very early days of practice our means of checking night sweats were very inadequate to the end sought. My memory can call up a whole series of cases well known to me where the patients dwindled away before our eyes; because our tonics, cod-liver oil and port wine, were unequal to meeting the drain of the night sweats. We were feeble because we walked in the darkness of ignorance, before the dawn of efficient anti-hydrotics. When Professor Sydney Ringer introduced belladonna for the arrest of night sweats, to my mind, he revolutionized the prospects of most cases of phthisis.

But it must be given in an efficient dose. I never begin with less than one seventy-fifth 1-75 of a grain of atropine. If a small dose be given and then the remedy be abandoned because this is insufficient, it is scarcely "homicide by misadventure" to my way of thinking. It should be pushed to one twenty-fifth 1-25 every night, *i. e.*, in practice, not at the examination table. As soon as the drain of blood salts is checked the appetite returns, usually without resort to bitter tonics.

So much for the first line of attack.

The second line is to increase the body-income.

At one well-known hospital quinine aud cod-liver oil constitute the treatment of phthisis pulmonalis, and a very good line, too; but scarcely quite elastic enough. But the principle is there, viz., to give tonic to the system, and to supply fat for the building up of healthy tissue. Ir is certainly good practice to give a bitter tonic, as strychnia, for instance, with a mineral acid, as phosphoric acid ; with a little sulphate of magnesia, if constipation be present, as is very often the case. If the tongue carry a brown hue, indicative of hepatic disturbance, then sulphate of soda must be substitued for the Epsom salts, *malgre* its nauseous taste.

The dietary should consist of fish, fat, and milk puddings, with a little meat. When the stomach is upset, then a little bismuth and soda may be given instead of the tonic, and the food should consist of milk well boiled with some of the many prepared foods on the market; and beef-tea, with the same, or broken biscuit.

When the gastric disturbance is allayed, then it is well to go back to the tonic. Blisters are of questionable advantage; and it is difficult to point out the indications for their use. Cod-liver oil may be given when the tongue is clean and the appetite vigorous. It should always be exhibited after food. The same may be said of chalybeats. These measures should be accompanied by fresh air—the purer the better. Bright sunlight, cheerful surroundings, pleasant companions are matters of no little moment. As to a sojourn in a high-lying Swiss valley, it is in fashion at the presnnt time, though as one of the very best physicians in Great Britain remarked:—"The cases which will get well at Davos are those which will get well elsewhere under intelligent management." There is no altitude too lofty for the tubercle bacillus to climb, if there exist a bit of tuberculous lung to afford it a congenial home. Certainly, a low-lying, damp locality, on a clay soil, must be abandoned for gravel or a chalk down; else the case will probably take the wrong direction.

English home comforts and food customs can be set against so many hours of sunshine in a mountain valley. That, I believe, is the coming creed. Such, then, is the second line of attack upon pulmonary phthisis.

Now, for two minor or auxilliary matters. One is the use of inhalations. Plain steam is good in irritative cough with dry air-tubes. Iodine, carbolic acid, eucalyptus, or Friar's balsam, or ordinary terebene are often excellent medications, and allay cough. The other is a resort to a cough linctus. On this matter opinions may differ. Some use paregoric to allay ceaseless cough, and do a great deal of harm very often therewith, though paregoric is the least objectionable of "cough medicines." The reckless resort to something "to allay the cough" has, in my experience, been too frequently followed by disaster to recommend itself to a thoughtful practitioner. Something to allay cough and preserve sleep at nights certainly does more good than harm; but "cough stuff" in the day is my abhorrence. It may be no more than prejudice, perhaps.

Such, then, are the main lines on which a case of consumption in its early stages has to be carried on; and on the whole it will be found to be not unsatisfactory.—*From Hospital Gazette.*

PULMONARY CONSUMPTION AS TREATED IN THE PHILADELPHIA POLYCLINIC.

By Thomas J. Mays, M.D.,
Professor of diseases of the Chest in the Philadelphia Polyclinic.

If it is once properly understood that, in the vast majority of cases, pulmonary consumption is a local disease, the nature of which is a low catarrhal inflammation of the alveolar spaces, resulting from a want of physiological activity in the affect-

ed part, the treatment of this disease will become comparatively simplified. Strange to say, however, everything which is known to be capable of producing morbid phenomena in the human body has, one time or other, been held accountable for the causation of pulmonary phthisis; and it is needless to tell you that its treatment varied accordingly. Let us premise our remarks, therefore, by saying that it is a disease with an intense partiality for the apex of either lung; and the question which most naturally suggests itself is, why the apex is so susceptible to, and why the middle and lower portions of the lung surfaces are so free from it? Is this the result of chance, or is it a law with antecedents as plain as the phenomenon is regular? A correct solution of this important question will go a great way towards defining the true origin of this disease. While not at all wishing to be understood as offering an all-sufficient explanation of this difficulty, we are quite justified in holding that one of the most potent and direct causes for such a state of things lies in the manner in which the bronchial tubes enter and are arranged throughout the lungs. These structures conduct the air principally in a downward direction towards the base of the lungs —hence the lowest parts of the lungs expand first, then the middle, and, finally, towards the very end of inspiration, the apices expand, if at all. It is our firm belief, deduced from many observations, that in most persons who—like clerks, telegraph-operators, tailors, shoemakers, etc.—lead a sedentary life, and who maintain a stooped position of their chests and shoulders, the apices never become fully inflated. Another reason why the lower parts of our lungs are inflated more than the apices is because we possess nearly one-fourth more lung surface than necessary to carry on the process of respiration; and, therefore, that part of the respiratory surface which is filled with the greatest facility, viz., the base, performs the work of the whole. Therefore both the structure and the function of our lungs conspire to diminish the activity of the apices and enhance that of the bases. We have already stated, that the chief factor in the production of pulmonary consumption is a physiological inactivity of the lung apex; and if this proposition is true, then it should follow that those persons in whom the apices are least developed should be most liable to this disease, and *vice versa*.

Not long ago we made an investigation into the nature of this problem, (1) and found that the abdominal was the original type of respiration among both sexes; that the costal type of the female developed through the influence of abdominal constriction produced by clothing; that when the female falls a victim to consumption, her costal movements are markedly diminished; and that the female is less liable to consumption than the male civilized life. It can be futhermore said that, according to Waldenburg, the vital lung capacity in persons who lead a sedentary life—such as professional men, students, clerks, etc.—is smaller than those who follow an active calling —like sailors, recruits, etc.—and it is a well-known fact that the latter class is much less susceptible to this disease than the former. And, moreover, our American Indians, who are not confined on reservations, and who are free to obey their roaming instincts, are almost entirely exempt from pulmonary consumption, presumably because of the greater lung capacity which their active life entails on them.

All these facts tend to confirm the correctness of our fundamental proposition, at least this far, that increased lung capacity decreases the liability of consumption. We think, however, when this fact is coupled with the other fact, that the civilized female possesses a much smaller lung capacity than the male, and is still less liable to the disease than the male, it is quite obvious that it is not a large chest capacity, but a well developed apex capacity which insures immunity from the disease. Barring her greater apex capacity, there is no reason, so far as we are able to discern, why the female should be more exempt from consumption than the male. Indeed, everything, both in herself and in her surroundings, tends to increase her liability in this direction. She is the weaker of the two; she undergoes the enervating processes of gestation and of lactation; she leads a sedentary and inactive life; she is occupied within doors during the greatest part of her lifetime, and is therefore constantly exposed to causes which are known to produce the disease, and most of which make the male notoriously liable if he is exposed to them.

In the next place it is important to trace the pathological relation between apex inactivity and pulmonary consumption; or, in other words, we must ascertain how such a want in development prepares the apex for the onset of this disease. You are all aware that if any organ, like a muscle, for example, does not receive adequate physical exercise, it diminishes in size; its muscular elements and connective tissue framework shrink in consequence. Precisely the same thing may happen when any part of a lung is deprived of its needed exercise—that is, when it is not expanded as fully as it ought to be during the act of inspiration—the air cells begin to shrink and collapse. The shrinkage is due to a contraction of the connective tissue around the air-cells and the small bronchial tubes, and when sufficiently pronounced it constricts the blood vessels and interferes with the free circulation of the blood in that part of the lung, and congestion and a low state of catarrhal inflammation follow as a consequence. This whole condition is analogous to that which occurs in the acquired form of atelectasy, and we would especially commend to you the remarks of Prof. Rindfleisch on the subject Atelectasia, in his

(1) An experimental inquiry into the chest movements of the Indian female.—*Therapeutic Gazette*, May, 1887.

well known work on Pathological Histology. In tracing this state of things further, we find that the epithelial elements multiply and accumulate in the alveoli, and produce what is known as infiltration. In this way one alveolus fills up after another, until a whole group, or a cluster of them, is involved. Such an accumulation of catarrhal products exerts a decided pressure on the surrounding pulmonary and bronchial capillaries, and the blood-supply and nourishment are gradually diminished and finally cut off from these infiltrated areas, which, in due course of time, become more or less isolated and circumscribed masses, which are prone to undergo a slow process of cheesy degeneration, if the morbid process continues.

Pathologically then we have to deal here with a local infiltration of, or an accumulation of catarrhal epithelium in the air cells, brought on by physiological inactivity of the affected area, which area is, in the great majority of cases, confined to either apex. Now, what is to be done in a therapeutic way? Clearly there are here two very important indications. The first is to combat the local infiltration, and the second is to annihilate its cause. This is the method which has been pursued for some time in the hospital of this institution.

In regard to the first indication, we would say that we have here an inflammatory deposit differing, in principle, in no wise from a similar deposit in any other part of the body, and the dictates of common sense point out that that which is useful in the one condition is also useful in the other. We all know the inestimable value of counter irritation, and of passive motion in producing resorption of chronic inflammatory deposits in joints, muscular tissues, etc., as well as in the external surfaces: and in consonance with this view we apply hot flax-seed meal poultices, every day from morning until night, for a period of three or more weeks. In connection with the poultice we apply friction, iodine, etc. We are certain, from quite an extended experience, that these measures produce a powerful impression on the infiltration in question, and that they facilitate resorption more markedly than any other means at our command.

In addition to the poultices, we use local or general massage, once or twice a day, as well as electricity. In these cases of constitutional lethargy these adjuvants have the happy effect of arousing the local and general cells activity, and are usually followed by an increased appetite. In connection with all these external applications—poultices, massage and electricity—we advise our patients to take plenty of fluid food, such as milk, etc. This should not be given to the extent of satiation, but at regular intervals—say half a glass or a teacupful every hour.

So much, then, for the principal means which we believe have the power of dispersing the infiltrated catarrhal products of the lung; and what can be done in the direction of counteracting the source of the disease? From what has already been said, it must be quite evident to you that any measure which improves the air capacity of the apices will accomplish the end in view. Among the most important measures which fulfil this indication directly are voluntary and forced breathing. The former should be practiced by taking deep and long inspirations at intervals of two hours or oftener throughout the whole day. The inspired air should be retained as long as it conveniently can be, in order to give the fullest possible expansion to the whole lung surface. The latter mode of breathing consists in inhaling compressed and exhaling into rarified air, or the reverse. This method is the most important lung expander of all. It should be begun gradually—say twice a day for a week or two, then three times for one week longer, then four times, and finally allow the patient to spend most of his time in the use of this apparatus. The great difficulty here is the limited time which the compressed air is generally employed. We are convinced that the best results follow when its use is protracted.

Physical exercise is an important indirect method by which the lungs are expanded. Under these conditions more oxygen is consumed by the muscles of the body than during rest; hence more blood flows through the lungs in a given time, and a larger lung surface is thrown into activity. Those parts of our lungs which are but rarely or never called into use now are thrown into a state of healthy expansion, and it is in this way that our whole respiratory apparatus is made to approach that condition which gives the savage, and those who pursue an active life, that freedom from consumption which we know is so common among them.

In carrying out this method of treatment, the following points should be borne in mind: first, no exercise should carried to the extent of decided fatigue; second, whenever possible, the body and head should be erect, the shoulders thrown back, and the lungs thoroughly filled with each breath; and, third, sufficient food must be taken during the intervals. Among the most important measures to increase the lung capacity is that of pulmonary gymnastics, which should be carried out in accordance with the following directions: The arms, being used as levers, are brought as far backwards as possible, and on a level with the shoulders, during each inspiration, and brought together in front on the same level during each expiration. Another way is to bring the hands together above the head while inspiring, and gradually bring them down alongside the chest while expiring. When a deep inspiration is taken in accordance with either plan and held until the arms have gradually moved forwards or downwards, and even longer, the process of chest expansion is materially enhanced. All these movements may be facilitated by using dumb-bells or chest-weights, etc.

This, in connection with stimulant medicines

and nutritious food, has been the general line of treatment pursued, both at the hospital here and in our private practice, for some time; and we commend it to your consideration, in the full belief that you will not be disappointed in its results.—*Phil. Med. Surg. Reporter.*

THE MANAGEMENT OF THE ANTERIOR LIP OF THE UTERUS.

By Dan. Millikin, M.D., Hamilton, O

Cin. Lancet-Clinic.—1. I venture to remind you, in the first place, that in many obstetric cases we find the maternal parts prepared for delivery and the uterine action quite vigorous or quite intense, but in such cases can barely reach the os uteri, even by the rudest examination, with two fingers thrust far back into the concavity of the sacrum.

In such cases, if it be found possible to drag the os forward for a more perfect study of the fontanelles and sutures of the child's head, it will often be found that the labor suddenly takes on a more active character, possibly with pains quickly becoming expulsive, and with sudden dilatation of the os and softening and thinning of its margins.

When such a sequence is observed, the operator is apt to believe, as I do verily believe, that he has enabled the uterine forces to accomplish their work more efficiently and, though the hand of art has been busy, more naturally. The anterior lip then appears an impediment to labor. It is, in such cases, a sack drawn over the child's head, for you will allow me to assume for the present that there are none but head cases. This sac has a hole in it, and he appears the wisest obstetrican who pulls that hole forward and upward, with reasonable force, until he places it in relation to the prominent part of the child's head.

2. The obstetrician even of small experience will bear me out in an assertion that the anterior lip of the uterus is commonly the most resistant to those mechanical and physiological influences, which induce the softening processes which should precede the extrusion of the head from the uterus. I have no theory to offer in explanation of this fact, I only submit that it is a fact.

When this is the case, the rest of the parturient canal being ready for the rapid advance of the child, I think it is fair to say again that the anterior lip is an obstacle to parturition. What is then the remedy? How remove this obstacle?

I am not able to think of any mode of removing the obstacle, save by an imitation and acceleration of the physiological mode of softening the opposing structure; and there is no convenient method of accomplishing this result save by the same manœuvre of pulling the os forward, holding it over the most forward and prominent part of the child's head, and there retaining it with the deliberate intent to expose its margins fully and early to the tension of the advancing hand.

3. A third condition demands, it seems to me, a similar procedure. We often find on a first examination, the head well down in the pelvis, and the posterior margins of the os wholly inaccessible to the touch, and yet the anterior lip is in such condition that it forms a thick cord just in advance of that part of the head which is ready to glide under the pubic arch. Here is a decided impediment to labor. Here is an œdema which has no more tendency to mitigate itself than has the œdema of a strangulated finger or any other pinched and bruised organ. What are we to do about it?

We have no such question to ask of the posterior lip of the uterus because the promontory of the sacrum is not adapted to produce or to maintain any such condition. There is ample room back yonder, and the posterior lip seems to be naturally more readily softened and, during labor at least, much shorter.

If the vulva is capacious, I place the tips of two or even three fingers against the œdematous cord of which I speak, with a not irrational expectation that by pressing firmly upward behind the pubis I may be able to drive out the œdema and place the anterior lip where it will no longer be pinched, but merely be attenuated and stretched in the physiological manner and by the physiological means. If the vulva is not capacious enough for this, I place the forefinger in the vagina, bend it, lay the knuckle against the cord-like anterior lip, and make the best pressure I can in that manner.

It may not be very courteous to attempt to anticipate an objection which will surely be made to this procedure—an objection to the effect that the manipulation is one which will bruise the anterior lip. The objection is good, but short-sighted. Past question, the pressure on the œdematus structure tends to bruise it; but it is already cruelly bruised, and it is eminently desirable to put it out of the way of further bruising. Moreover, its nutrition is profoundly altered by the pressure and the œdema, and, in such a case, time is an important element. Better the severe and brief than the gentler and prolonged bruising.

For three clear and readily appreciated indications, then I recommend that the margins of the os be put upon the stretch by the fingers pushing or pulling, as the case may require:

First, when the os points strongly backwards in a direction in which the child's head cannot advance; secondly, when there is a preternatural rigidity of the anterior lip out of proportion to the rigidity of the posterior lip and the general progress of labor; and, third, when there is an œdematous condition of the anterior lip due to pressure between the child's head and the mother's pubic arch.

THE QUESTION OF EXTRACTION AFTER VERSION.

N. Y. Med. Jour., Nov. 26, 1887 (Editorial):—

It is the rule of practice with many that, in transverse presentations, turning by the feet should be followed by immediate extraction. This doctrine has recently been notably supported by

Winter, on the strength of the histories of 310 transverse presentations at the maternity of the University of Berlin. Winter's propositions are: (1) Turning should not be performed until the os uteri is sufficiently dilated to admit of extraction. (2) The best results for the child will be secured when version is immediately followed by extraction.

In a recent number of the *Zeitschrift für Geburtshülfe und Gynakologie*, Dr. R. Dohrn, of Konigsberg, assents to the first of these propositions, but not to the second.

Winter's second proposition, as to the time which should elapse between version and extraction, is of great practical importance. That writer reports 236 cases of turning followed by immediate extraction, the os being fully dilated, in which only 5 children were born dead, against 27 cases of turning before the os was fully dilated, the course of the labor being then left to nature, in which 13 children were born dead. These facts, he thinks, speak forcibly in favor of waiting for full dilatation and then immediately following version with extraction. To Dohrn, however, these figures are not conclusive upon the general question, for the children in the second series of cases were placed under more perilous conditions than the others, in consequence of premature interference, and better results might have been secured, in all probability, if complete dilatation had been waited for.

Dohrn believes, with Boer, that in parturition the forces of nature should be allowed full sway until there is evidence that they can no longer be trusted, that every interference for which there is no definite indication is reprehensible, and that extraction without a special cause is no exception to this rule. The results of extraction will vary with the manual dexterity of the operator and the degree of his knowledge of the mechanism of labor. This is amply shown by contrasting the two per cent. of mortality after version in Winter's statistics, the operators being skillful obstetricians attached to a great hospital, with the fifty-seven per cent. of mortality which is given as the frightful rate in general practice in the Duchy of Nassau, according to a recent report. The inference is obvious, that the natural forces were not given fair play in that locality. An important adjunction is, that in extraction the force should be exerted in the direction which the uterine contractions indicate that the fœtus is to take in any given case. In 29 cases in Dohrn's public service, in which turning was performed after the os was fully dilated, the delivery then being left to nature, there was not an accident, and he therefore infers: (1) That in transverse presentations podalic version should be performed only when the os uteri is fully dilated, although to this there may be occasional exceptions. (2) That extraction should follow immediately upon version only when there is a well-defined indication for such a procedure; if there is no such indication, the safety of both mother and child will be most favored by awaiting delivery by the unaided natural powers.

FÆCAL ANÆMIA.

N. Y. Med. Jour., Dec. 3, 1887 (Editorial).—At a recent meeting of the Medical Society of London, Sir Andrew Clark read a notable paper entitled "Observations on the Anæmia or Chlorosis of Girls, occurring more commonly between the Advent of Menstruation and the Consummation of womanhood." Under this title the *Lancet* publishes the paper, but it more pithily expresses the view that the author took of the affection in the caption "Fæcal Anæmia" which heads its report of the discussion.

We have not space to give a summary of the argument, but must content ourselves with presenting some of the more practical aspects of the author's conclusions. The crucial test of the theory, he admits, is in the treatment, and he maintains that the treatment which most speedily and effectually cures the disease is that in which, by the use of tonic aperients, full and regularly recurring action of the bowels is produced; that with the suspension of this treatment the disease recurs, to subside again on its resumption; and that no treatment appears to be permanently successful which does not provide means for securing daily relief to the intestinal canal.

In ordinary cases he would direct the patient to sip a quarter of a pint of cold water on waking in the morning; to take a tepid sponge-bath on rising, drying herself quickly, and then being rubbed briskly with towels, to clothe herself warmly and loosely, taking care that there is no constriction of the body or of the limbs. She should have four simple, but liberal, meals, daily: Breakfast, between eight and nine, of wholemeal bread and butter, with one or two eggs, some broiled fresh fish, or the wing of a cold chicken or pheasant, and, toward the close of the meal, half a pint of equal parts of milk and tea, not infused longer than five minutes; lunch or dinner, between one and two, of fresh, tenderly dressed meat, bread, potato, some well-boiled green vegetable, and any simple farinaceous pudding or cooked fruit, preferably apple, drinking one glass of Burgundy, clear or in half a tumblerful of water; tea, between four and five, of whole-meal bread and butter, with a cup of equal parts of tea and milk; and dinner or supper, between seven and eight, resembling the mid-day meal, but smaller in quantity. Nothing is to be taken after this meal, and nothing between meals. The patient should walk at least half an hour twice a day, and as much more as her strength and convenience will allow. She should go to bed about ten o'clock, and at that time the sponging and toweling should be repeated. The bedroom should be cool and well ventilated. The patient should "lead a simple, regular, active, occupied, purposive life," and not notice or distrust herself. This seems to us an excellent regimen in the main, but we would substitute coffee for the tea.

Together with these hygienic instructions, Sir Andrew Clark prescribes an old-fashioned ferrugi-

nous cathartic, to be taken twice a day. Under this plan of treatment, nine girls out of ten recover their health in from a month to three months, and the recovery is very likely to prove permanent if they are then ordered a pill of aloes, myrrh and iron, to be taken once or twice a week in doses just sufficient to bring about a moderate natural action of the bowels.

CHLOASMA.

This is a very frequent affection, occurring upon the face, especially in women suffering from disorders of the generative apparatus. It is rare in men. The common name for it is "moth patches." The affection consists of yellowish-brown or brownish patches on various parts of the face. The forehead, chin, temples, and lower portions of the cheeks are principally affected. There is neither desquamation nor infiltration, and no subjective symptoms of any kind are present.

The causes are obscure. It is known that the discoloration appears frequently during pregnancy, to disappear after parturition. It is also a frequent accompaniment of uterine and ovarian disorders, and often disappears when these troubles are cured. The relation of caused an effect is, however, not known.

Chloasma resembles very closely tinea versicolor, a discoloration of the skin due to a vegetable parasite. The latter, however, in nearly all cases, occurs upon the chest, abdomen, arms and neck, namely upon those portions of the body covered by clothing. It is very rarely seen upon the face or hands. Chloasma, on the other hand, is almost entirely limited to the face. Tinea versicolor is slightly scaly and sometimes itches. Neither of these features are present in chloasma. Finally the latter disease occurs nearly altogether in females after the age of puberty, and generally in those who suffer from derangement of the generative organs, tinea versicolor is oftener seen in males.

The treatment of chloasma consists in removing the uterine or ovarian disease, if any can be found upon which the pigmentation depends, and in promoting the casting off of the superficial epidermal layer so as to bring a less pigmented stratum to the surface. For this purpose the applications recommended above for freckles will be found useful. The ointment or lotion of salicylic acid, or a lotion of corrosive sublimate 2.2 grains to the ounce may be used. Soft soap spread upon strips of muslin like an ointment, and allowed to remain upon the pigmented skin for several hours will produce a maceration and desquamation of the epidermis which often leaves the skin of a normal color after the redness has disappeared. The discoloration will however return unless the use of one of the ointments or lotions mentioned is continued.

The application which will give the most satisfactory results is an ointment of subnitrate of bismuth and white precipitate, in the following combination: R.—Bismuthi subnitrat., hydrag. ammoniat., aa ʒ i; vaselini, ʒ i. M. ft. ungt. S: Apply to the discolorations at bed-time, and remove in the morning with Hębra's spiritus saponis kalinus.

This ointment I have used in a large number of cases with uniform success. Sometime it is a little to active and produces irritation of the skin. Its use must then be intermitted for a few days, or the ointment made weaker. Some skins can stand a much stronger application, however, and I have used as much as two drams of each of the active ingredients to the ounce of vaseline.

The effect becomes manifest in a few days after beginning its use. There is slight scaling and roughness of the skin, showing that a furfuraceous desquamation of the epidermis is going on. In the course of ten to fifteen days the skin has become much paler, and if the application be continued the normal tint of the skin can be regained. This can, however, only be mantained by the continued use of the ointment, unless the disease of the internal organs upon which the discoloration depends has been removed.

The pigmentation of the skin from sunburn usually soon disappears after the cause has ceased acting. The bleaching can be somewhat hastened by a lotion of corrosive sublimate in emulsion of almonds (gr. j : ʒ ii).

Permanent discolorations of the skin are sometimes produced by a mustard poultice or blister. Hence care should be taken to avoid making these applications to the face, or upper part of the chest in women, as they may prove the source of an annoying or humiliating disfigurement in the latter. I have seen a number of cases in which the chest had become pigmented from mustard poultices, thus interfering with the wearing of dresses cut decollete. To many women this is not altogether a trifling matter.

In these discolorations the use of the salicylic acid lotion above mentioned will prove useful. The prognosis must not be too sanguine, however, as the pigmentation is liable to return.—*American Medical Digest.*

STRICTURES.

Dr. McConnell believes that the only satisfactory treatment for strictures in the pendulous portion of the urethra is to cut them, and for the first three inches he prefers a bayonet-shaped tenotome. This he slips along the floor of the urethra to an inch beyond the stricture, and on drawing out the knife cuts the stricture about a line in depth, and the mucous membrane an inch before and behind it. He then enlarges the urethra by divulsion, puts the patient to bed for several days, keeps the urine alkaline (with sodii bicarbonas gr. x, and morphinæ sulphas gr. $\frac{1}{6}$), and afterwards passes bougies for some time.

THE VALUE OF NITROGLYCERINE IN TINNITUS AURIUM.

(Presented at the Meeting of the Otological Section in the International Medical Congress at Washington, Sept. 9th, 1887.)

By LOUIS J. LAUTENBACH, M.D., Ph.D.,

Assistant Surgeon to the Pennsylvania Eye and Ear Infirmary, Philadelphia.

After the usual experience in ear work, and a gradual accumulation of unimproving cases of tinnitus aurium, I began to study the general effects of nitroglycerine, and to use it in these cases. It had been used by others in tinnitus, both with and without success; but I knew of no way of recognizing the cases in which it would be most likely to prove serviceable. In order to learn when to use it, I began to give it in private practice to all cases of tinnitus in which I had found no improvement under other treatment, and in public practice in all cases of tinnitus. In some cases there was improvement; in others there was none.

In the patients where improvement had occurred, there was found to be present a similarity of conditions, and I soon satisfied myself that there was a class of patients in which the nitroglycerine treatment was valuable. I found it most serviceable in patients having the tinnitus aurium, without much impairment of hearing, and where but little change had occurred in the naso-pharynx, and where it was found on examination that some abnormal condition of the heart existed, either functional or organic.

In many of these cases, more or less structural changes from catarrhal inflammation of the middle ear were present; among them change in the shape and translucency of the drumhead, with accompanying change in appearance or position of the triangular light spot.

Follicular pharyngitis was present in some of the cases. The tinnitus was generally constant, or nearly so. It was not, as a rule, more marked when the patient was in a recumbent position; occasionally there was some remission in that position. The thermometric and barometric conditions of the atmosphere influenced the tinnitus. Damp weather, with low barometer, usually increased it. Dull, heavy headache more or less persistent, and most frequently located in the parietal regions, though sometimes located in the frontal region, was of frequent occurrence. In these cases I used the nitroglycerine in pill form, and in doses of one-hundredth of a grain. At first but one pill a day was given, generally in the morning. The amount given, later, was increased, enough of the pills being given to diminish the tinnitus, or to cause headache. As many as six of these pills were given in a day, though, usually, two were found to produce a beneficial effect. Improvement sometimes was manifest within a day or two after beginning the use of the remedy. In cases of long standing, the remedy was sometimes continued for a period varying from one to three months before a satisfactory result was obtained. Cases in which there was recurrence of the tinnitus seemed to yield more readily on resuming the treatment than when the remedy was first administered. The conclusion which I reached, after a fair trial of this remedy, was that it is of value in certain cases of tinnitus aurium—especially in those where cardiac lesion exists, functional or organic, and where there is little or no loss of hearing.—*Phil. Med. Times.*

CREDÈ'S METHOD OF PLACENTAL EXPRESSION.

Although Mr. Dease, of Dublin, wrote, as early as 1783, "Should the detachment of the placenta not be effected in the usual time, it will be much facilitated by the operator judiciously applying his hand to the region of the uterus, which he may excite to the necessary contraction by gentle friction;" and although Ramsbotham, in 1839, in his text-book, condemned pulling and jerking at the cord, and advised instead gentle pressure over the uterus, it was not until 1860 that external expression of the placenta was placed on a scientific basis, chiefly by the labors of Credé, of Leipsic. Shortly after Credé's publication, the method came to be known by his name, and it has been recommended in the obstetrical books of all languages, with the notable exception of Charpentier's classical work, in which a warm protest is entered against it. Notwithstanding the general acceptance of the method, there have not been wanting those who, from time to time, have dissented from it. Whenever the criticism has seemed to call for it, Credé has defended his method manfully. His latest defense is directed against an attack that was made at the last meeting of German naturalists and physicians, at Wiesbaden, and is published in a recent number of the "Archiv für Gynäkologie."

He discusses the objections *seriatim*. In answer to the accusation that he was guided by the watch in his procedure, he refers to his different writings, in which it is distinctly stated that the time for expressing the placenta should depend upon the circumstances of the case, and should have three different objects in view: (1) the removal of existing dangers, (2) the avoidance of threatened dangers, and (3) the saving of time. The first object calls for immediate action, as everybody agrees. To accomplish the second, an effort at placental expression should be made with the second, third, or fourth pain, but the placenta may not be expelled until the tenth pain. Usually from fifteen to thirty minutes are consumed in the process. No sane man would object to recou se to some procedure to accomplish the third objec provided the woman's safety was not endangered thereby. To the charge that the method is attended with increased loss of blood, he replies that accurate weighings of the blood lost—as accurate as they could have been—by different observers have not sustained the statement.

One of the most serious objections raised was that the method favored the retention of portions of the membranes in the uterus, and thus heightened the danger of septic infection. Credé denies the premise; furthermore, granting it to be true, he contests the legitimacy of the deduction with the following facts: From January 1, 1883, to March 31, 1887, 4,969 women were delivered in the Leipsic clinic and Poliklinik, without any attention being paid to retained portions of the membranes, and in not a single case did death or even severe illness ensue from such inattention. That the method requires some skill Credé does not deny; some skill is demanded in any procedure belonging to the art of medicine. The beginner must know how, and with very little practice he will acquire the necessary skill. Reliance on the action of the abdominal muscles has been recommended to supersede pressure over the uterus; but after delivery, especially in a multipara, the abdominal muscles are flaccid and incapable of powerful contraction. Stimulation of the lower part of the uterus also has been advised, but by Credé's method the whole uterus is stimulated to contraction, more especially the fundus, where the thickest muscular layers are situated. It was suggested at Wiesbaden that the body of the uterus should be drawn up over the placenta. Not only would this be contrary to nature's process, but it would involve considerable danger, inasmuch as the lower segment of the uterus is thin and easily torn. The theory that the separation of the secundines requires the accumulation of a certain amount of blood between them, and the uterine wall has but few adherents, and does not appear to be well founded. Credé favors the old view that the separation is brought about by the uterine contractions. In conclusion, he sums up as follows: His method of dealing with the placenta is in accordance with the natural process; it has been tested by experience; the objections raised against it at various times have been either unfounded or directed against phantoms; of the many recent proposed modifications of the method, some are not new, and those that are new are worthless; in short, the method stands unassailed.—*N. Y. Med. Jour.*

COLORED LIGHT IN THE TREATMENT OF THE INSANE.

Dr. Ponza, Medical Superintendent of the lunatic asylum at Alessendria (Italy), reports some experients which he has made on the effect of colored light on lunatics. The idea was suggested to him by the observations of Robert Hunt on the favorable effect which light transmitted through violet-tinted glass on the development of animals and plants. Dr. Ponza selected rooms with as many as possible, and he has the walls painted of the same color as the window-panes. A patient suffering from melancholia, who would not eat, was placed in a room with red walls and window, in three hours he became quite cheerful and asked for food. Another lunatic, who always kept his hands over his mouth to keep out air and nourishment, was placed in the same room, and the next day he was much better, and ate with a hearty appetite. A violent maniac was placed in a blue room, and became quiet in an hour. Another patient, after spending a whole day in a violet-colored room, was completely cured. Theoretically this appears to be a very interesting experiment, but we have good reason to believe that in practice it is of little real service. It had one very good effect, which was that it induced the medical men who were making the experiment to spend a good deal of time and attention on the patients who were under treatment. One German medical man who visited Alessandria, said it was "most excellent for the doctors." It is probable that in some future day electric light may be used for the darker parts of asylums, and then we shall be able to see whether electric light will serve to develop vitality in men as it has been proved to do in plants. In many persons of unsound mind the whole vital energy is defective, and the medical officers often feel a sad want of something which will produce energy. Stimulants of one kind or another are tried, and do some good; but we should welcome some more general natural means of improving the general health. The asylum physician looks to food, warmth, and exercise as his great assistants; and if electricity, or blue or yellow rays, can be added, so much the better.—*British Medical Journal*, March 3, 1888.

ON SCARLET FEVER AND ITS TREATMENT.

By Clement Dukes, M. D., Physician to Rugby School

Drs. Jamieson and Edington have proved that the specific cause of scarlet fever is a bacillus, which they have cultivated, and with which they have inoculated animals and produced scarlet fever. They have also shown that this bacillus occurs in the blood during the first three days of the fever; that, later on, it is absent from the blood; and that it is found most extensively in the desquamating skin after the third week. They have, further, indicated a method by which this bacillus can be destroyed in the skin, and thus the spread of the infection of scarlet fever can be minimised, and the unprotected, even when residing in the same house, be safe from falling into its rammels.

But a still more important matter is the treatment and arrest of scarlet fever in each individual; for the first cry a parent whose child has scarlet fever is, "What can you do to save my child; and how can you spare him from being maimed for life by its sequelæ?" His second question being, "How can you prevent its spreading to my other children?" This second question Drs. Jamieson and Edington have answered. It is with the hope that I may induce them to investigate the first

question that I am writing this paper; for it has already been brought within a measurable distance of being answered by Dr. Illingworth, of Accrington, who states that biniodide of mercury ($Hg\ I_2$) is a specific for scarlet fever. Recognizing the importance of his letter in the use of mercury as a germicide, I resolved to administer the drug at the earliest opportunity. I have now given the $Hg\ I_2$ in several cases of scarlet fever—with this result, that it not only arrests the fever, but it prevents the desquamation of the skin, or arrests it to such an extent that only a slight scurfiness of the skin of the hands and feet arises. If such be found to be invariably the case, will the bacilli of scarlet fever be found in the skin at all; and if not, will not the infectious period of scarlet fever be thereby reduced to a few days only, and will not the sequelæ of scarlet fever be absolutely prevented?

The $Hg\ I_2$ can be administered in the form of of a pill or of a mixture of the li.q hyd. perchloridi c. pot. iodid. The only drawback to its use which I have at present found is that if it be given before the diagnosis is absolutely certain, the physician will be apt to think, when he finds no desquamation taking place at the usual time, that the case was not one of scarlet fever. The drug prevents the desquamation of the epithelium of the tongue, as well as of the skin, and the throat rapidly heals under its use.

I was busy collecting facts when Drs. Jamieson and Edington's valuable paper, appeared, and I should have waited till I had collected a sufficient number of instances before writing this paper, had it not been for the desire that others, especially the above-named authors, would assist in establishing, or refuting, this treatment, for the experience of one individual is limited.

The benefit to be obtained from the use of $Hg\ I_2$ is far-reaching if it be reliable in all cases, for it not only prevents the desquamation of the skin, and thereby probably prevents the major part of the infectious nature of scarlet fever, but it will probably also be found that it obviates the necessity of keeping patients in bed for three weeks, which is the only safe rule hitherto, and isolated for five or six weeks, and will prevent the occurrence of the much-dreaded sequelæ.

The gist of the whole matter seems to be this: 1, that if the bacilli of scarlet fever are only discovered in the blood for about three days; 2, that if the bacilli, after this date, chiefly occupy the desquamating cuticle; 3, that if this desquamation can be prevented altogether by a medicine which destroys bacilli; 4, then, in all probability, the infection of scarlet fever will only last a few days, and we are within a measurable distance of limiting the spread of scarlet fever, ane of removing its fangs by preventing the sequelæ.—*British Medical Journal, July* 9, 1887, *p.* 67.

GERMAN HOSPITAL.

Dr. Vogler presented a patient who suffered with paralysis of the left side, due to rupture of a blood-vessel in the brain. Patient was put on iodide of potassium and the fluid extract of hyoscyamus, and externally, wet cups along the spine and electricity. He has recovered motion of both limbs, arm and leg nearly normal.

Dr. Vogler presented a case of rheumatic arthritis; patient has suffered for two years with swelling and pain of upper and lower extremities, without being able to work.

He put her on large doses of salicylic acid for some days; externally, leeches, and leadwater and laudanum to allay the inflammation.

He speaks highly of an ointment composed of powdered camphor, watery extract of opium, belladonna, simple cerate, and zinc ointment. The sulphur-baths of this country or Baden-Baden and Wiesbaden of Germany, and a dry and warm climate are advised in this disease.

Dr. Deaver presented a case of shoulder-joint amputation (after Larrey's method), which he performed some weeks ago (for injuries patient sustained), with very good results.

In speaking of injuries with loss of blood, Dr. Deaver advocates hypodermic injections of alkaline solutions; if that should not be sufficient, he recommends transfusion of blood. For stimulants, he recommends the hypodermic injection of ether as the best; after that, whiskey and digitalis. Stimulants by the stomach should be given after the stomach is quiet, and they should be given in small doses at short intervals with hot drinks.

In amputations, Dr. Deaver uses the catgut for the ligaturing of the blood-vessels, hot water to stop capillary hemorrhage, and, as an aseptic, bichloride of mercury solution, 1 in 2000, to wash the parts thoroughly, and then an antiseptic dressing.

As seminal emissions usually occur after the first sleep, and are caused by the irritation of a full bladder, Dr. Sudduth gathers from this that it is well to advise patients of this character to empty the bladder immediately upon awakening in the morning, generally about 4 a.m.

BLEPHARITIS.

Prof. Keyser has excellent results from his pomade anti-blepharitic:

Oleopalmitate of lead	20 parts.
Almond oil	10 "
Simple cerate	5 "
Balsam of Peru	1 "
Liquid tar	½ "

Spread a cloth with this and allow it to lie on the inflamed surface each night.

FOR FŒTID FEET.

Since the offensive odor from certain persons' feet has been shown to be of microbic origin, Prof. Gerhard advises several applications of bichloride of mercury, 1-5000 or 1-10000.

KEITH ON HYSTERECTOMY FOR FIBROMA.

I say it deliberately, hysterectomy is an operation that has done more harm than good, and its mortality is out of all proportion to the benefits received by the few. What is the mortality of this operation, now so often and so unnecessarily performed? We shall never know. I put it at 25 per cent., though it is probably much higher. I may be wrong; others can correct me by giving their total results. In other words, one out of every four women operated on by hysterectomy has till now died after an operation for the removal of a tumor that has, as a rule, a limited active existence, and that of itself rarely shortens life. We have no right to rush our patients into such a fearful risk, yet this is done every day. In abdominal surgery responsibility seems to have become old-fashioned and gone out of date. Fortunately for those afflicted with uterine tumors, it now matters little which of the old ways of operation is the best; whether the ovaries can be removed or not, whether the extra or intra-peritoneal method be the better way of performing hysterectomy, or whether the convalescence lasts in the one case six weeks, or in the other twenty days, the treatment introduced by Dr. Apostoli must take precedence of all others. The success of this treatment is a great fact, and in saying that I accept *toto animo* his teachings, I do not speak without some experience of his practice. We have already—my son and I—in scarcely five months, applied electricity in strong, accurately-measured doses upwards of 1,200 times, in considerably more than a hundred patients, the majority in cases of uterine fibroids. The labor has not been small—indeed it has been very hard—and it is not easy to get the science of the subject into an old head. On the other hand, it has opened out a delightful study, which increases in interest every day the deeper we get into it. When I came back from my holiday in the beginning of July there were waiting for me several cases for hysterectomy, or for the removal of the ovaries for bleeding fibroids, and there have been others since. These have all gone home without operation, with menstruation almost normal, and improving after their return, with the tumors in every case reduced in size, with pain gone, and with a freedom to walk about and enjoy life such as they were long strangers to. In one case only has there been a return of hemorrhage. The tumor had gone down two-thirds, she was apparently well, and, unwilling to detain her longer in town, she was allowed to go home too soon. All were more than pleased to have escaped the risks and miseries of a surgical operation that at once put their lives in peril. We—every one of us—consider far too lightly the misery that such operations cost our patients and their friends.

Should these improvements be permanent (and we have Dr. Apostoli's word for it that if the treatment be carried out long enough such is generally the case, and, so far, I am able to endorse almost every statement that he has made), it follows that the field for hysterectomy, for the removal of ovaries for fibroids is narrowed down to the smallest limits. I have never been in favor of hysterectomy, simply because its death rate is so high and because it is performed for the removal of a tumor that rarely kills. So strongly do I now feel on this subject that I would consider myself guilty of a criminal act were I to advise any patient to run the risk of her life—and such a risk—before having given her a fair trial to this treatment, even were I sure that the mortality would not be greater than that which hysterectomy has given me in my private cases—under 4 per cent.—*British American Journal.*

TOBACCO HEART.

Of the cases of heart disease recently treated in the writer's room, at the dispensary, nine were diagnosticated as functional disorders due to the excessive use of tobacco. All the nine cases occurred in young men between the ages of seventeen and twenty-seven years.

The tobacco was used in all the cases in the form of chewing, the amount ranging from a half pound to one pound a week. The habit of chewing was begun early in life in all the cases; in one case at the age of five years; the oldest age noted at which chewing was begun was twelve years; the average was seven years.

The symptoms complained of were palpitation, pain and dyspnœa. Palpitation was present in all the nine cases and was greatest upon making any exertion. Irregular action of the heart at the time of the examination was noted in only one case. Pain was complained of in seven cases, and always had its seat immediately over the heart or under the sternum. Dyspnœa was complained of in only three cases, and was not excessive. Hypertrophy of the heart, as evidenced by increased area of cardiac dullness, was noted in two instances. In both cases the dullness extended to the right edge of the sternum. In the two cases in which hypertrophy had occurred, care was taken to exclude any other cause than tobacco. No murmurs were noted in any of the nine cases.

Treatment consisted in prescribing total abstinence from the use of tobacco, and in some cases, where this alone did not suffice, the moderate use of bromide of potassium. Notwithstanding great length of time during which tobacco had been used, and the early age at which the use had been commenced, this simple common sense treatment usually sufficed to give entire relief after three or four weeks. In only one case was digitalis use. *M. H. Fussell, M.D., University Hospital, in Periscope.*

MELANCHOLIA.

Dr. Pepper claims excellent results from hyoscine, with the ferruginous tonics, nutritious die and complete change of the patient's surroundings.

SOAPS.

Prof. Shoemaker says that soda soaps as a rule are more irritating than potash soaps. Great caution should be exercised in the selection of a toilet soap, for in order to be entirely harmless these should have a neutral reaction. He exhibited to the class a number of principal toilet soaps, which he had gotten at different places in the city, and which he had given to an expert to be tested. With two exceptions, all these soaps contained more or less free alkali. This free alkali, he said, was, especially in young children, the cause of many skin eruptions, such as simple erythema, seborrhœa, pustular eczema, and the like.

Prof. Shoemaker then enumerated the different medicated soaps and their particular values. Alum soap is good in hyperidioses, in pustular eczema, and in chafing. Boro-glyceride soap is useful in acne, seborrhœa, and for rough skin. Chamomile soap is mildly stimulating, excellent for bromidroses, intertrigo, and is the best soap for dandruff. Naphthal soap is the very best application for animal parasites on any part of the body, and also in bromidroses. Salicylic acid soap is a non-irritating antiseptic soap, and is good for toilet purposes. Corrosive sublimate soap is serviceable for removing freckles, chloasma, rough skin, for changing a muddy to a clear complexion, and in all kinds of itching.

DYSPEPSIA MIXTURE.

For chronic gastric catarrh, Prof. Gerhard highly recommends this *mistura dyspeptica*:

℞ Foliarum sennæ ..... 3 ij
Pulv. rhei.....gr. xl
Ft. infusion with ℥iv water and add
Vini ipecacuanhæ.....f 3 ss
Ext. hydrastis Canadensis fld.....f 3 jss
Potassii carbonatis ..... 3 j

Sig.—Take a dessertspoonful half an hour before eating, in water as hot as can be borne.

"VAGUE PAINS."

Prof. Atkinson considers oil of gaultheria a most valuable remedy. He gives it till ringing in the ears and vomiting occur. For a girl of seven, weak, pale, anæmic, and troubled with "vague pains," he gives

℞ Olei gaultheriæ..... f 3 ij
Mucilaginis acaciæ,
Syrupi simplicis.....aa f ℥iss M.

Sig.—3 j every three hours.

In addition, he puts her on a tonic course of cod-liver oil, iron, gin, wine, and strychnia.

PROGNOSIS IN CONVULSIONS.

Convulsions following burns in small children are apt to prove fatal. I have never known a case of scarlet fever to recover in which a convulsion has occurred after the appearance of the eruption.—*Prof. Atkinson.*

CYSTITIS.

Dr. Parish established an artificial vesico-vaginal fistula in a woman whose urethra had been dilated three times in the past year for cystitis, probably specific, with almost constant dribbling of the urine. He claims that the hollow button, inserted between the cut edges, causes aggravation of the cystitis, and he prefers stitching them with silk, allowing the sutures to remain for at least ten days.

IN FRACTURE OF THE CLAVICLE.

Dr. White claims that the four-tailed bandage fills all the indications, if the patient can be kept in the supine posture, with the head lowered. The elbow rests in a small hole cut in the centre of the bandage, two tails, 10 inches wide, encircle the chest, and the other two, 4 inches wide, are carried round the shoulder, opposite the fracture. No pads are used.

HYOSCYAMINE FOR ASTHMA.

Dr. Musser recommends hyoscyamine, gr. 1-120 every three hours, internally; or where a rapid effect is desired, gr. 1-140 to 1-120 hypodermically, for the spasmodic asthma of emphysema. He uses, in addition, nux vomica as a respiratory stimulant, and terebene or oil of eucalyptus for the accompanying bronchitis, diminishing the hyoscyamine as the other drugs are increased.

IRITIS.

Prof. Keyser at once gives gr. 1-12 bin-iodide of mercury, with gr. v iodide of potassium, three times a day, and applies hot stupes of hammamelis for the pain. If no benefit be noticed in three or four days, he drops the mercury and tries salicylic acid gr. xx ter die. If a condyloma is detected on the iris, he is sure of specific cause.

BROMINE IN CROUP.

Prof. Howell has known of a number of instances in which a drop of bromine, with each dose of bromide of potassium, acted well in throwing off the membrane in croup.

FLATULENCE DUE TO FERMENTATION.

In a case of windy dyspepsia, due to indigestion of starches, Prof. Waugh simply prescribed diastase, with excellent results.

In the case of a child seventeen months old, very low with marasmus, accompanied by diarrhœa and vomiting, Prof. Waugh stopped its milk and substituted predigested food. The vomiting and diarrhœa he treated by sulphocarbolate of zinc, gr. ¼ every two hours. The child is improving arpidly.

THE CANADA MEDICAL RECORD.

A Monthly Journal of Medicine and Surgery.

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MONTREAL, MARCH, 1888.

PROFESSIONAL SUCCESS.

We commend to the attention of our readers the excellent advice to the graduates of the valedictorian for the Faculty in another column, on the subject of professional etiquette. Indeed, we consider this subject of so much importance, that we purpose devoting a column of our pages every month to the reproduction of the code of ethics of the American Medical Association.

On reflection, it will be evident to every one that it is to the advantage of the profession, both as a whole and as individual members, that all our dealings with each other and with the public should be of the most honorable nature. Nothing ends to lower us so much in the eyes of the public as the little backbitings and petty jealousies which we unfortunately too often see, and which are turned to the disadvantage of the backbiter quite as much as to that of the one detracted. Even if something disparaging is said about us by a brother, no matter how great the provocation may be, and no matter how much we may be tempted to retaliate, it will prove better in the long run to take no notice of such injustice, feeling certain that in the end truth and right must prevail. If we see a brother succeeding a little better than ourselves, let not this excite our jealousy or wrath, but rather our emulation; for we may be sure that he possesses some little qualities which we do not. Instead of wasting our time in finding fault with him for succeeding, rather let us find out what those qualities are and cultivate them. In nine cases out of ten we may acquire them as well, and turn them to the same advantage as he has turned them.

Although fortune may occasionally help a man to a high position, no power on earth can make a man fill a position for which he is not fit. The highest and most enduring reputations in the profession have been those which were made slowly and laboriously, because they were built on a sure foundation. And it is a rule, to which there are but few exceptions, that we are sure to attain just that position for which we are fit, and no higher; consequently hard work is the only sure road to success. In the practice of medicine as in the evolution of nature, the fittest will survive.

LONGEVITY AND MEDICAL MEN.

In an excellent article in the "19th Century," Dr. Burney Yeo points out the causes which lead to a long life. He obtains his data by analyzing the lives of those who have reached a great age and whose mode of living was well known. He finds that the most important thing is to obtain a regular and sufficient amount of sleep. The number of hours required is greater than most men get, being over rather than under eight hours. The truth of the adage "early to bed, etc.," is fully borne out by his statistics. The second requirement in importance is to have one's meals at regular hours, and to have sufficient time to eat them properly. The third advantage is to have a mind free from care and worry. And the fourth to have plenty of excercise in the open air. Although several centenarians were in the habit of using during a considerable part of their lives wine and malt liquors, still the majority were either total abstainers or exceedingly abstemious.

From the consideration of these facts, it is not surprising to find that the average death rate of medical men is double that of clergymen. Is there anywhere a medical man who takes plenty of time to his meals, who gets more than eight hours of sleep, who is free from anxiety, or who gets sufficient exercise in the open air?

Although many of these adverse conditions are absolutely inherent to a doctor's life, still there are some of them which might, with a little trouble, be considerably ameliorated. Take, for instance, night work; laying aside cases of midwifery, the majority of times a doctor is sent for at night are for cases which should have been seen to during the day, or even the day before. People have fallen so into the way of thinking of the doctor as a kind

of night owl, who delights in prowling about in the darkness, that they forget that he is only human, and needs unbroken sleep as much or even more than any other worker; indeed, we know of cases in the country where they send for the doctor at night, simply because it suits their convenience to go for him after the day's work is done, and because they are too busy to send for him in the day time. The victims of this thoughtlessness of course broke down in health, and had to give up practice altogether for nearly a year, for which loss they received no compensation. There is a way to avoid this common cause of loss of health and early death, and that is by educating the people, especially one's own patients, to understand that a doctor requires rest as much and more than any one else. How are we to do this? By refusing to go out at night? No. By evincing anger? No. How, then? Simply by charging double or triple for night visits. Let us get up and go with the messenger with alacrity, and even the appearance of pleasure if we can, but wait until we send our bill, and then remember to make the difference between the charge for night visits and day visits so strikingly great, that even the dullest patient cannot fail to observe it. Nor need we fear to loose any, or at all events many, patients by following this course. They will soon get to understand that it is for their good as well as the doctor's that they should send for him in the day-time.

DOCTORS' BILLS.

In the article referred to above, another cause of shortened life is financial worry, or what might be expressed by the words "being hard up." Whether medical men are ever in this condition we cannot state; but if they are, it is not to be wondered at, when we remember how negligent they are in business matters, but more especially in sending out and collecting their accounts. It is a general complaint among medical men that to one likes to pay the doctor's bill. That the same person who pays his grocer and butcher gladly and promptly is slow in paying the medical adviser, to whom, perhaps, he owes his life. And we are apt to say that our patients are ungrateful. But we think medical men are themselves to blame. It is too much to expect of human nature that our patient's gratitude will keep as fresh after many months as it was the very day we pronounced him out of danger. The present system of sending out accounts once a year is altogether wrong. Even the patients themselves frequently ask many times for their accounts before they can get them, and it is only after they have forgotten all about them that the bills come in, perhaps when they have spent the money on something else. If doctors would spend a few hours on the last day of every month, they could send out bills for services rendered during the month, as well as reminders, in the form of a second account, to those who have forgotten to respond to the first one. We have followed this method in our own practice, and do not think we have ever lost any patients thereby, except a few of that undesirable class, who, though quite able, never have any intention of remunerating the physician for his services. In fact, this is one of the advantages of this system; it soon lets you know who intends to pay and who does not. Indeed we know of some specialists in this city who send a bill to a patient on the first day of the month, who only came for his first consultation on the thirtieth on purpose to let him know what his charges were. Be it understood, however, that in these remarks we are only referring to the doctor's right to be paid by those who are quite able to do so; we do not wish to discourage any one from attending all poor people free of any charge.

We may have something further to say on the subject of fees in our next issue, as this is always a subject for discussion among medical men.

THE CODE OF ETHICS OF THE AMERICAN MEDICAL ASSOCIATION.

OF THE DUTIES OF PHYSICIANS TO THEIR PATIENTS AND THE OBLIGATIONS OF PATIENTS TO THEIR PHYSICIANS.

ART. I.—*Duties of Physicians to their patients.*

1. A physician should not only be ever ready to obey the calls of the sick, but his mind ought also to be imbued with the greatness of his mission, and the responsibility he habitually incurs in its discharge. These obligations are the more deep and enduring, because there is no tribunal other than his own conscience to adjudge penalties for carelessness or neglect. Physicians should, therefore, minister to the sick with due impressions of the importance of their office; reflecting that the case, the health, and the lives of those committed to their charge depend on their skill, attention and fidelity. They should study, also, in their deportment, so to unite *tenderness* with *firmness*,

and *condescension* with *authority*, as to inspire the minds of their patients with gratitude, respect and confidence.

2. Every case committed to the charge of a physician should be treated with attention, steadiness and humanity. Reasonable indulgence should be granted to the mental imbecility and caprices of the sick. Secrecy and delicacy, when required by peculiar circumstances, should be strictly observed; and the familiar and confidential intercourse to which physicians are admitted in in their professional visits should be used with discretion, and with the most scrupulous regard to fidelity and honor. The obligation of secrecy extends beyond the period of professional services; none of the privacies of personal and domestic life, no infirmity of disposition or flaw of character observed during professional attendance should ever be divulged by the physician, except when he is imperatively required to do so. The force and and necessity of his obligation are indeed so great, that professional men have, under certain circumstances, been protected in their observance of e crecy by courts of justice.

3. Frequent visits to the sick are in general requisite, since they enable the physician to arrive to a more perfect knowledge of the disease—to meet promptly every change which may occur, and also tend to preserve the confidence of the patient. But unnecessary visits are to be avoided, as they give useless anxiety to the patient, tend to diminish the authority of the physician, and render him liable to be suspected of interested motives.

4. A physician should not be forward to make gloomy prognostications, because they savor of empiricism, by magnifying the importance of his services in the treatment or cure of the disease. But he should not fail, on proper occasions, to give to the friends of the patient timely notice of danger when it really occurs, and even to the patient himself, if absolutely necessary. This office, however, is so peculiarly alarming when executed by him, that it ought to be declined whenever it can be assigned to any other person of sufficient judgment and delicacy. For the physician should be the minister of hope and comfort to the sick; that, by such cordials to the drooping spirit, he may smooth the bed of death, revive expiring life, and counteract the depressing influence of those maladies which often disturb the tranquility of the most resigned in their last moments. The life of a sick person can be shortened not only by the acts but also by the words or the manner of a physician. It is, therefore, a sacred duty to guard himself carefully in this respect, and to avoid all things which have a tendency to discourage the patient and to depress to his spirits.

5. A physician ought not to abandon a patient because the case is deemed incurable; for his attendance may continue to be highly useful to the patient and comforting to the relatives around him, even in the last period of a fatal malady, by alleviating pain and other symptoms, and by soothing mental anguish. To decline attendance, under such circumstances, would be sacrificing to fanciful delicacy and mistaken liberality, that moral duty which is independent of, and far superior to, all pecuniary consideration.

6. Consultations should be promoted in difficult or protracted cases, as they give rise to confidence, energy and more enlarged views in practice.

7. The opportunity which a physician not unfrequently enjoys of promoting and strengthening the good resolutions of his patients, suffering under the consequences of vicious conduct, ought never to be neglected. His counsels, or even remonstrances, will give satisfaction, not offense, if they be proffered with politeness, and evince a genuine love of virtue, accompanied by a sincere interest in the welfare of the person to whom they are addressed.

PERSONAL.

Our readers will regret to learn of the illness in London of our young confrère, Dr. Rollo Campbell, his father, Dr. F. W. Campbell, being summoned to England to attend him. From advices received to-day however, we are glad to learn that his illness is not of a dangerous nature, being simply nervous exhaustion from overwork in preparing for and passing the first half of the examination for the M. R. C. P., London, in which he has been successful. He has been advised to defer the passing of the other half until his health is better, but with the determination which is hereditary he is already hard at work again.

Dr. J. B. Howard and wife have sailed for a prolonged visit to Europe. We are glad to learn that with good care she has completely re covered her health.

The wife of Dr. G. T. Ross has presented him with a daughter.

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Original Communications.

OBSTETRICS AND GYNECOLOGY.

BY A. LAPTHORN SMITH, B.A., M.D., Lecturer on Gynecology in Bishop's College, Montreal.

The Journals of the last month are remarkable for a pretty general attack on ergot as at present used in the practice of obstetrics. Some observers such as Blanc (*Annales de Gynec.* (March, 1888), going so far as to say that its administration retarded involution. We are glad to see this view controverted by Drs. G. E. Herman and C. O. Fowler (*Brit. Med. Jour.*) who in two series of cases in which the uterus was measured externally, on successive days, found that the uterus diminished more rapidly in size in those treated with ergot continuously during the fortnight following parturition. Dr. F. W. Putham (in *Med. Summary*) expresses our own views very concisely as follows; he says: first I adopted a rule in all cases of multiparous women, whom I had not previously attended and knew, to inquire particularly as to the character of their previous labors, and especially to ascertain if there had been any difficulty of this kind. If there was a history of considerable flooding, or if there was actually post partum hemorrhage, I invariably administered the ergot.

Second, in all cases where there seemed to be a hemorrhagic tendency in the family.

Third, in all cases where the uterus did not firmly contract within a reasonable space of time, the amount of time to be determined by the circumstances attending each particular case; and in all cases where the uterus contracts well at first, but soon relaxes sufficiently to permit of a considerable hemorrhage.

Fourth, in all cases of after hemorrhage.

These four indications are believed to cover the majority of cases of labor which may be termed normal at the completion of the second stage at least.

Professor Pajot of Paris says: Never give ergot when there is anything in the uterus. The value of this advice will be appreciated when we think of the cases of laceration of the perineum of the cervix uteri, and even of the uterus itself, which have resulted from its administration before the parts were at all capable of allowing the head to pass.

With regard to the routine administration of ergot, we think the practice a good one, in cities at least, because the natural contractions are nearly always defective, owing to bad hygienic surroundings; and this has been our custom in the 326 cases which have been the sum of our experience extending over nearly ten years without a death, if we except a case of heart disease in which the dying woman incidently gave birth to an eight months fœtus. Neither in any of these 326 cases have we had any hemorrhage, a fact which we attribute to routine administration of a drachm of ergot as soon as the child had been delivered. We have generally found that gentle frictions over the abdomen were very effective in bringing on firm contractions, in cases where not having the ergot with us we were obliged to wait until a supply was procured.

Apart altogether from the question of ergot, there is nature's means of securing firm contractions, which we fear is wilfully or ignorantly ignored; we

refer to the effect of placing the child to the breast almost as scon as born, or at any rate as soon as washed. Dr. King in an excellent paper (*Amer. Jour. Obstet.*, April, 1888) says: "with the civilized woman, when the child is born, it is immediately taken away from her by another,—the nurse or physician. The barbaric woman, on the contrary, is able to rise and take care of the child herself, and so do the animals. I have thought it not improbable that this apparently trifling difference may have a very material influence in creating the necessity for artificial aid in placental delivery. We have learned by experience that pressure upon and kneading the uterus and the application of the child to the breast secure uterine contraction and promote expulsion of the after birth. The very means which nature has provided and designed to promote placental expulsion are, in the civilized female, taken away from her, and hence the necessity of some artificial substitute, which is supplied and rightly supplied by the hand of the accoucheur."

The same writer makes a very valuable remark with regard to drainage, which we think is but little put in practice by the majority of practitioners. He says: "from the necessity of recumbency for some days following delivery, drainage from the uterus and vagina, by gravitation, is interferred with in the civilized woman. On the contrary, the uncivilized woman as well as the animals, after natural labor, are able to rise up and walk, and thus promote drainage by gravitation.

As long ago as ten years we were recommended by one of the oldest practitioners in this city, Dr. Hingston, to allow our parturient patients to sit up for a few minutes several times a day while they were emptying their rectum or bladder, so that at the same time they might drain their uterus and vagina of the clots and bloody serum accumulated in them by the dorsal recumbent posture. And we have never had any cause to regret following this advice.

While the death rate of midwifery cases has fallen very considerably, indeed to almost nothing in private practice, it is still considerable in hospital practice; the difference we believe to be due, not to an unfavorable state of the health of women in these latter, on the contrary the hospital cases generally come from a much more robust class than those in private practice, but rather to the presence of students and nurses who cannot be induced to believe in aseptic midwifery, and who will without compunction go directly from the dead house or surgical ward to the bedside, and even into the vagina of the parturient woman. In the Feb. number of this Journal we called attention to the growing conviction in the minds of the most advanced obstetricians, that the less the woman was fingered during her confinement the less likelihood was there of septic complications. But if it is bad enough for her to be examined by the careful and educated physician, how abominable it is to have her examined by the ignorant and unscientific nurse whom we most often find in great demand when a confinement is on the tapis. As an instance of the danger from this source, we might mention that when we began practice we were once summoned to see three sick children in the east end of the city, and whom we at once pronounced to be suffering from scarlet fever. Their grandmother, who had one of them on each knee, remarked that she was sorry that she could not stay to help their mother to nurse them as she had just been sent for to attend on a lady in the west end, whose labor had already begun; of course I took immediate steps to prevent her from starting on her murderous errand.

If, however, the death rate has considerably fallen, the same cannot be said of the number of minor accidents, such as laceration of the cervix and perineum, which have certainly increased. Now, although Emmet, when he first wrote on lacerations of the cervix, proved by his statistics that the medical man was not in these cases to blame, we have noticed what is somewhat remarkable, that among English women, nearly always confined on the left side, the laceration is nearly always to be found there; while among French women, who are nearly always delivered in the dorsal position, the laceration is either by bilateral, or at least it will be found on the right side. In other words the laceration is generally found on the side where the attendant has had the best opportunity of pressing and stretching the cervix with his right index finger.

Dr. King calls attention to another evil of frequent vaginal examinations in the following words: "One of the means which nature has provided to facilitate the transit of the head through the vaginal canal and vaginal outlet, viz.: the luxurious layer of lubricating mucous, has been repeatedly disturbed, broken up, and withdrawn by the examining fingers of the obstetrician."

Society Proceedings.

MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

Stated Meeting, February 3rd, 1888.

JAS. PERRIGO, M.D., PRESIDENT, IN THE CHAIR.

Drs. Spenclove and Laberge were elected members.

Amyotrophic Lateral Spinal Sclerosis.—Dr. STEWART showed a case of amyotrophic lateral sclerosis. The patient, a man aged 34, always enjoyed a good health until his present trouble began, which was about a year ago. The first symptom complained of was a feeling of pricking, coupled with a cold sensation in the ball of the left thumb. Shortly afterwards, wasting of the thenar eminence was noticed, and this was quickly followed by wasting of the interossei of the same hand. At the present time there is very marked atrophy of the left thenar and hypothenar eminences, and of all the interossei of the same side. There is slight wasting of the flexors on the anterior surface of the forearm and of the biceps and deltoid of the same side. The spinati, as well as the rhomboids and pectorals, are also the seat of marked atrophy. There is slight wasting of the corresponding muscles of the right hand, arm and shoulder. The atrophic muscles are subject to fibrillary twitchings; many apparently normal muscles are also subject to these twitchings. He complains of "waves of twitchings" passing through his head (scalp). The muscles of the lower extremities are very frequently the seat of these troublesome twitchings. The left hand and shoulder atrophic muscles exhibit a modified reaction of degeneration, the contractions being very slow while the A S Z < K S Z. During the past ten days there has been a gradually increasing loss of power in the left lower limb. This has now attained a degree almost sufficient to prevent the patient going about. The degree of paralysis varies considerably from day to day. The paralyzed muscles are neither atrophied nor hypertrophied. They are, however, in a constant hypertonic state. There is marked exaggeration of the knee-jerks. Ankle clonus is present. The biceps and triceps reflexes of the upper extremities are marked also.

The integument over the wasted districts is constantly covered with a profuse, clammy perspiration, and at times a papular rash appears, but usually only lasts a few hours. There is no atrophy of any of the facial muscles. There is no history of heredity. The case is evidently myelopathic in origin. It is a well-marked example of Charcot's "Amyotrophic Lateral Sclerosis."

Pathological Specimens.—(1) *Potts' Curvature.*—Dr. JOHNSTON exhibited for Dr. Roddick a case of very extensive caries of the vertebræ with psoas abscesses. The caries involved the bodies of all the dorsal vertebræ and a large retro-thoracic abscess had formed in consequence, but without giving rise to any symptoms. The bodies of the last dorsal and first and second lumbar vertebræ were completely destroyed, causing a marked angular curvature. The psoas abscesses were perfectly symmetrical; passing in front of the psoas tendon below Poupart's ligament, they had in each case passed backward and inward, reaching to the fold of the buttock near the lesser trochanters. On the left side the abscess had passed down to the popliteal space when it was opened by Dr. Roddick; Dr. Bell had subsequently opened it above in the left gluteal region. There was no tuberculosis anywhere, and the walls of the abscess showed no tubercles. The pus contained no tubercle bacilli.

(2) *General Tuberculosis.*—Dr. JOHNSTON showed another case of vertebral disease, where the bodies of the second and third lumbar vertebræ were infiltrated with extensive caseous areas. A small tuberculous abscess had formed in the right side, at the level of the third lumbar body. This had involved a small vein opening into the vena cava inferior. There was acute miliary tuberculosis of both lungs, which had caused his death. The patient had been under Dr. Ross with symptoms of deep-seated pain referred to the right sacro-iliac articulations.

Nephrotomy.—Dr. SHEPHERD related a case of nephrotomy for hydro-nephrosis which was followed by death in two days. The following is the history of the case: C. W., aged 66, a tall, thin man, who had always been healthy, though there was a tuberculous family history, was suddenly seized some two years before with acute pain in the left renal region, which passed down towards the bladder. It was relieved by opiates, and afterwards for a time he felt fairly well. He had a second similar attack of severe pain a month or two afterwards. After this he began to urinate more frequently, and occasionally the urine was

bloody. He, however, attended to his business, and was in fairly good health. About a year ago he noticed that his urine was thickish, and that he made it more frequently. This was benefited by treatment, though up to four weeks ago, when he had to take to his bed, he was continually growing weaker and losing flesh. His urine was never free from sediment, and he had occasional attacks of painful and frequent micturition. He had a chill some time in October and took to his bed; his micturition now became more painful, pain greatest at point of penis, and the deposit in his urine was increased in amount. His urine was still occasionally bloody. Dr. Shepherd first saw him in December; he was then in a weak condition, passing his urine painfully and frequently. There was a large amount of pus in urine; nearly one-sixth of whole amount passed (45 oz.) daily was pus. Urine perfectly sweet; specific gravity 1010, alkaline, and containing a slight amount of albumen. He also complained of severe and continuous pain in his bladder. On examination, the bladder was found to give no evidence of stone, but patient had a moderately large prostate. On examining the region of the kidney, pressure below the last rib on right side gave rise to severe pain, and there was a distinct fullness to be felt there. This fullness and pain on pressure did not exist on the left side. Under ether, a tumor could be made out in the region of the right kidney. This was aspirated, and some three or four ounces of clear fluid drawn off, which had no urinous smell, but on chemical examination proved to be almost pure urine. No pus was evacuated. After each examination patient passed large quantities of bloody urine. The patient's condition not improving, and, in fact, growing much worse, operation was suggested. For some time Dr. Shepherd was in doubt as to which kidney was manufacturing the pus, the right kidney, on aspiration, giving clear fluid and the history of renal colic being on left side. However, as the pain and tumor existed in the right, it was determined to explore this side. This was done on Jan'y. 22nd, Drs. Fenwick and Ross assisting. There was considerable fat, but the kidney was easily reached, and on examination the pelvis and calyces were found much distended with fluid; about six ounces was evacuated. From the condition of the kidney it was pretty certain that the large amount of pus did not come from this kidney, and only clear fluid was evacuated on incision. The exploration failed to detect any pockets of pus. It was supposed that the wrong kidney had been cut down upon, and that the suppurative disease existed in the left. The wound was sutured and a large drain placed in it. The patient recovered well from the operation, but secreted no more urine, and died uræmic two days later.

Autopsy by Dr. W. G. Johnston twelve hours after death.—A very strong urinous ammoniacal odor noticed about the body, which was well nourished. In abdomen the kidneys did not project below the edge of the floating ribs. A rubber drainage tube in a wound in left lumbar region. Pelvis of left kidney moderately distended. Ureters on each side distended to about size of forefinger. Both kidneys showed marked hydronephrosis, with dilated pelves and calices, papillæ flattened. Renal substance atrophied and microscopically showed extensive cirrhotic changes, but was free from any appearance of acute inflammation, and the collecting tubules are not dilated. No calculi present. The pelves and ureters contained opaque purulent-looking fluid, but the mucosa nowhere eroded. Bladder contained about 10 oz. dark urine, was sacculated behind prostate gland, the middle lobe of which was greatly enlarged. The lateral lobes also slightly enlarged, but soft. Muscular coat of bladder greatly thickened, and trabeculae prominent. The mucosa, on the contrary, very thin and atrophic, nowhere ulcerated, but showed deep slaty pigmentation.

Dr. JOHNSTON thought the most interesting symptom was the presence of what appeared to be pus in the urine; that is to say, a dense cellular deposit not accompanied by much mucus. This was always laid down as a sign by which suppuration in the kidney can be distinguished from catarrh of the bladder, and in this case had materially influenced the diagnosis. Here, however, there was no true pus present in the sense of a product of suppuration accompanied by necrosis. The anomaly was probably explained by the condition of the bladder mucosa, which showed a marked atrophy, while in most cases of cystitis following prostatic obstruction he had found the bladder mucosa greatly thickened and hypertrophic. This atrophic mucous membrane being unable to secrete any considerable amount of mucin, had made the appearance of the urinary deposit very misleading.

A Case of Diabetes.—Dr. KENNEDY reported a case of diabetes in which a daily analysis of the

urine had been made from Oct., 1886, for ten months. The patient was a female aged 28 years. The tables recorded quantity of urine, specific gravity, amount of sugar, urea, etc., including drink and food taken. At commencement of treatment the average daily amount of sugar was seven ounces. Codeia was first given with benefit, but lost its effect during second month, at which time the patient's condition became serious. On Dec. 1st, 1886, nitro-glycerine was given and continued with slight intermission for five months; its action was markedly beneficial, as the patient continued to improve. So far as Dr. Kennedy was aware, this was the first time the remedy had been used in this disease. Jambol was given for a short time as an additional remedy, but not continued. Iron, strychnine, etc., were given for the anæmia, etc. A strict diabetic diet was followed with saccharine as a sweetening agent. In July, 1887, no medicine was given, as the patient was almost well, and during the last week of this month the condition was normal, with no sugar. At the present time the patient is perfectly well. During the ten months the patient passed 52 lbs. of sugar.

Discussion.—Dr. Ruttan said that this case deserved more than a passing notice. There was probably not another case recorded in which such an accurate and thorough analysis of the urine had been made. A daily quantitative estimation of the most important constituents of a delicate patient's urine extending over a period of ten months should reveal something of interest. It is important to note the fact that whenever there was a sudden decrease in the percentage of sugar, there was an increase in the acetone group of excreta, and this was accompanied with the most alarming symptoms. Whether there is any relation between quantities of sugar and acetylacetic acid excreted has not been determined, but there are few who believe that the symptoms of diabetes are due to the sugar or to the want of proper assimilation of carbohydrates. If these acetone products do not of themselves produce the coma and toxic symptoms of diabetes, their appearance during and preceding coma is a remarkably common coincidence. In a recent case of sudden diabetic coma, the urine examined for Dr. Howard looked only a trifle pale, had no acetone odor when fresh, specific gravity 1 020, only 2.7 per cent. of sugar, but was highly acid, acidity =1 to $\frac{2.7}{100}$ of a grain of oxalic acid per ounce, and was loaded with acetylacetic acid. In another case, a life insurance candidate recently examined, no sugar reaction was obtained by Fehlings' solution, but the acetone reaction was marked; specific gravity was normal. Two days later this patient's urine gave 3 per cent. of sugar and no acetone; specific gravity 1028. The specific gravity of diabetic urine is no index to the quantity of sugar, nor, indeed, if acetone be found, is it in relation to the total solids, as the acetone and alcohol resulting from the decomposition of acetylacetic ether would greatly lower the specific gravity. No work can be done of much clinical interest regarding acetonæmia or diacetonæmia, till a more convenient method of estimating acetone be found than that recommended by Salkowski.

Dr. Mills wished to express his appreciation of these tables. Analyses of the urine so accurate, complete, and continued daily over so long a period were, he believed, without a parallel. It would be difficult to say what their value might be ten years hence, when the subject of diabetes was better understood. The physiological experiment of puncturing the floor of the fourth ventricle was unsatisfactory, and must necessarily be so if we were correct in crowding so many "centres" into this region. Vaso-motor effects follow it in time, but we are learning more and more that nutrition is less dependent on blood-pressure than has been supposed. From the results of the urinary analyses in this case and others, it was clear that in diabetes the nutritive processes were profoundly disturbed. Why should we suppose that sugar production was dependent on only one set of chemical reactions in the body when it is now known that sugar or allied bodies can be made in the laboratory by a variety of processes, even a variety of syntheses? May not diabetes originate in aberrant metabolism in different organs? It is impossible, at all events, to have for any length of time one colony of cells (organ) disordered without widespread evil in the economy. Should not diabetes be regarded as a complication of disorders starting either as a more or less general disturbance of the nutritive process? Or, if we confine the term to that derangement of one organ which leads to excessive production of sugar, regard it as the starting point only, instead of fixing the whole attention upon this and treating the disease as if it consisted wholly in derangement of one set of processes resulting in excess of sugar. It looks as if the chemists, physiologists and

pathologists must unite in the investigation before the present partial and unsatisfactory views of the actual condition would give place to broader and truer ones.

Dr. BULLER said that the color rings observed by the patient when looking at a light were probably due to a slight conjunctivitis, and were not characteristic of the disease.

Stated Meeting, February 17th, 1888.

JAS. PERRIGO, M.D., PRESIDENT, IN THE CHAIR.

Extra-Uterine Fœtation (Tubal); Rupture; Abdominal Section; Recovery.—Dr. WM. GARDNER related the case, while Dr. W. G. JOHNSON exhibited the specimens—a degenerated fœtus and a chorionic villi—under the microscope. The patient, aged 29, was married last July. She had an early miscarriage in October, for which she was attended by Dr. A. A. Browne of the city. After this she menstruated twice, the last time on the 2nd December last. Towards the end of the month she had morning sickness for a few days. During the early part of January a colored bloody vaginal discharge appearing, lasting nearly a fortnight. About the middle of January she was seized with violent pelvic and abdominal pain, with most alarming collapse, during which for many hours she was almost pulseless. From this in a few days she partially recovered, but soon there were recurrences of pain, faintness and symptoms of peritonitis. Her physicians, Drs. Browne and George Ross, recognizing the nature of the case, requested Dr. Gardner's opinion, and after examination he fully concurred in their diagnosis of ruptured extra-uterine fœtation. The next day, the symptoms continuing alarming, it was decided to open the abdomen. The right fallopian tube was found expanded into a friable mass, in which the fœtus was found imbedded in clots. On attempting to ligature this it tore away, so that it was not tied. The pelvis was full of clots. These were scooped out, and then the cavity was washed out with a forcible stream of water from Lawson Tait's large blunt trocar carried to the dependent parts. A drainage-tube was then inserted and left for eight days. For the first nine days the course of the case was perfectly favorable. Then evidences of cystitis appeared, and have continued to be rather severe and attended with some fever. There seems no reason to doubt that recovery will ultimately be complete and permanent. Dr. Gardner remarked that such a case as this well illustrates the triumphs of the modern extensions of abdominal surgery, and for this particular one we owe all that is worth knowing to Lawson Tait, whose remarkable results in a long series of such cases are now well known. The diagnosis will not always be easy, but given sufficiently alarming symptoms the abdomen must be opened and the condition found dealt with as may be necessary; and it is a great satisfaction to know that in the hands of competent surgeons the operation itself cannot be said to be a source of danger.

Discussion.—Dr. JOHNSTON said that in examining the specimen sent, amongst a large amount of blood-clot he had found a small, firm, fleshy mass 1¼ inches long, which appeared to be a thick-walled sac torn open. In one spot a typical area of chorionic villi was seen. Within the sac, attached to one wall, was a small mass covered with a smooth membrane (amnion). This appeared to be a blighted and degenerated fœtus, of which only the eye spot and the intestines were distinctly recognizable.

A microscopic specimen of the villi was exhibited, showing this structure to be quite typical.

Dr. GEO. ROSS had been called to see the patient, and had found her after the attack almost pulseless, in extreme pain, temperature subnormal, and very pallid. He had strong suspicion of hemorrhage in the peritoneum and peritoneal inflammation. There was a reasonable expectation of the patient rallying from that attack, but the danger of recurrence was very great. Dr. Brown had early arrived at a diagnosis from the symptoms of tubal pregnancy. He heartily congratulated Dr. Gardner on the very successful result in this case, and said that as far as he knew it was the only case in Canada of early diagnosis of extra-uterine pregnancy and successful operation for the same by abdominal section.

Dr. SHEPHERD asked if opinion was not now in favor of the belief that all intra-peritoneal pelvic hæmatocele were due to ruptured tubal pregnancy.

Dr. GARDNER, in reply, stated that they were not always due to extra-uterine pregnancy. He had operated for a pelvic hæmatocele, which was part of a general condition. They may also be caused by rupture of varicose veins, etc. Mr. Lawson Tait treats all large hemorrhages in married females as if due to extra-uterine pregnancy. Electricity would not have availed here, and can only be of use while there is life in the fœtus.

Carcinoma of the Stomach and Liver.—Dr. George Ross exhibited the stomach and a portion of the liver from the case, and related the following history: The patient, aged 55, had been under observation for four months, and had never had any gastric symptoms, but suffered from profuse diarrhœa and had a haggard appearance. Examination had shown a hard mass in the left hypochondrium, which moved with the diaphragm; the liver was not enlarged. There was no pain after eating, and no vomiting. The diarrhœa was controlled and the patient ate and drank well, but had continuous pain in the epigastrium. The hard nodule in the left hypochondrium rapidly increased in size, and it looked as if the left lobe of the liver was the seat of the tumor, but its origin was always doubtful. Later the patient developed albuminuria, and amyloid casts were found in the urine. The patient gradually sank. Dr. Johnston found at the autopsy a large fungating cancerous ulcer, occupying an area nearly four inches in diameter on the anterior surface of the lesser curvature of the stomach. Neither the pyloric nor æsophageal opening was obstructed. The base was deeply fissured, and had extended into the inferior surface of left lobe of liver to nearly one inch of the superior surface. No secondary deposit. Nature of growth scirrhus. Amyloid disease of glands in portal fissure, stomach and intestines marked, and the kidneys slight; spleen amyloid, but not enlarged.

Calculous Nephritis.—Dr. Johnston presented from Dr. Bower of Waddington, New York, a specimen of calculous nephritis, where the entire renal substance was destroyed, the kidney consisting of a series of suppurating sacs, each containing a calculus of uric acid with phosphatic incrustation; a large calculus blocking orifice of the ureter. The other kidney had been greatly shrunken and disintegrated apparently from pyelitis, but contained no calculi. The symptoms were persistent pyura, and towards the close uræmic coma.

Peritoneal Cancer.—Dr. Bower also exhibited a specimen of secondary carcinoma of the peritoneum. The growths, whose microscopical characters were those of encephaloid cancer, were all situated beneath the peritoneal coat of the intestines, soft and vascular, ranging in size from a pea to an egg. The seat of primary growth was uncertain.

Pharmacology of Arsenic.—Dr. Stewart read a paper on this subject, which appeared in the April number of the Journal.

Discussion.—Dr. Bell could recall at least three post-mortems he had seen in the Montreal General Hospital while house surgeon, and in each case there were well marked inflammatory lesions. He was surprised to hear from Dr. Stewart that in none of his cases were there any inflammatory lesions.

Dr. Reed could remember one case of poisoning from Paris green in which there was no gastro enteritis.

Dr. McGannon of Brockville referred to a case of arsenical poisoning, where the poison, Paris green, had been found in the stools and vomit. Patient died in seven hours. No post-mortem was allowed.

Dr. Shepherd said that if Dr. Stewart's statement was accepted, viz., that arsenic did not kill by the violence of its inflammatory action, but by the lowered blood-pressure, then we must change our method of treatment of such cases. The point was a new one to him, as he thought that in all cases death was due to inflammatory action. He still had confidence in the use of arsenic in certain diseases of the skin, viz., psoriasis and bullous eruptions, and in these cases had used it extensively, but had never seen the erythema or staining produced; this might be due to the difficulty of detecting erythema or staining when chrysophanic acid was employed.

Progress of Science.

MR. JONATHAN HUTCHINSON ON THE ABORTIVE TREATMENT OF SYPHILIS.

The early treatment of syphilis by small doses of mercury long continued is by no means a new method, many surgeons having carried it out for years past. There are, however, some who still use mercury on the old lines, and Mr. Jonathan Hutchinson has done good service in directing the attention of the profession to the subject, and pointing out the splendid results which may be obtained by the early and persistent use of mercury in small doses.

Mr. Hutchinson communicated his views to the members of the Medical Society of London, on the 28th ult., in a paper, the chief points of which are as follows:—

"For many years past I have been in the habit of assuring patients who came to me with indurated chancres, but without any other symp-

toms, that they would in all probability wholly escape the secondary stage. As years have gone on I have found myself holding out this hope with increasing confidence. My treatment has been almost uniform, and has consisted in giving mercury in the form of grey powder in one-grain doses three times a-day, at least, and more frequently if the symptoms did not quickley yield. I have always told the patient that he must take these pills for six months at least. The results have also been very uniform, or have varied chiefly according to the period of the disease at which the treatment was begun. The effect of the medicine in softening the induration is usually quite evident within a week, and may be expected to be complete in the course of a mouth or a little more. After this the patient remains without symptoms till the end of the course, except, perhaps, some slight persisting enlargement of the inguinal glands. At the end of the six months, if the treatment is left off, there not very infrequently follows in three weeks or a month an erythematous general eruption. This eruption is never severe, never becomes papular or scaly, and always vanishes in a few days if the mercury is resumed. It is never attended by failure of health, and but rarely by sore throat. On account of its frequency after six months' courses, I have lately been in the habit of continuing the treatment for nine or twelve months, and am willing to admit that it might be wise to continue it for still longer periods. I must state that, in a certain proportion of case's, sores, in the mouth or scaly patches in the palms, or a liability to transitory erythemata on the skin have occurred, but they have generally been in connection with some special kind of irritation.

"The statement which I wish to make quite clear is this: that I believe that it is quite possible by the early and continuous use of mercury, to suppress the secondary stage—in other words to make it abortive. In exceedingly few cases where it has been possible to use mercury without interruption in this way have I known a well-characterised secondary eruption or a typical sore throat to occur. In cases where diarrhœa or a sudden ptyalism have caused the course to be interrupted, the success has been less complete; but where the patient is careful, and can bear the drug, I may repeat that I believe that it is easily possible to prevent secondary symptoms. This assertion is not by any means the same as saying that it is possible to cure syphilis, for it does not concern itself with the tertiary stage. It is desirable, I think, in order that we should arrive at sound conclusions, that we should take our problem in parts. In making the proposition which I desire to submit to you this evening, that mercury is a specific antidote for the syphilitic virus, and that by its use the disease may be made abortive, I will divide my argument into several parts.

"The first statement shall be one with which all will agree. It is this: That in cases in which induration is well characterised and considerable, it always yields quickly and definitely to the influence of mercury. The very rare apparent exceptions to this which we witness occur to those who in a peculiar manner resist the influence of mercury. We never see sores remain typically hard when the patient is under the influence of mercury.

"The next is that in cases in which high temperatures have been observed in syphilis they always abate under the influence of mercury.

"Thirdly, I believe that all will agree that when a patient receives no treatment until his eruption is well out, the use of mercury will usually in the most definite manner cause the eruption to disappear. There is but little less certainty about this than there is as to the disappearance of induration in the sore, and the exceptions occur only when the treatment disagrees, and has to be interrupted.

"If these several propositions be true, if mercury always causes induration when present to soften down, fever when present to subside, and an eruption when present to disappear, I cannot think that any will see much improbability in the assertion that if used before the fever, rash, &c., have shown themselves, and steadily continued, it will prevent their development. It would be extraordinary if these symptoms should develop *de novo* under the very conditions which all but invariably secure their removal when extant.

"The practical questions which come, then, before the surgeon are these—In what manner and at what stage ought mercury to be given so as best to secure its antidotal efficacy? The verdict that mercury given in short courses is not preventive of the development of syphilis has been recorded in unmistakable terms by the surgeons of the past generation. Mr. Judd, indeed, whose reports are full of interest, and contain proof alike of ability and of candour, thought that such courses favoured the absorption of the virus, and made the disease eventually more severe. His courses were, however, of a fortnight, a month, or six weeks at the most, and were always attended by free ptyalism. The modern introduction of the small-dose system, with the avoidance of ptyalism, makes it necessary that we should investigate the whole question anew. I do not suppose that there is much difference as to the special preparation of mercury which is employed, though it will not do to take this for granted. Some of the records of M. Diday as to his failures to prevent symptoms would add to the suspicion that the iodide of mercury, as employed by him, is less efficient than the mercury only, in the form of grey powder. The great point is that a preparation should be used which can be pushed without producing symptoms which necessitate its temporary discontinuance. Its efficacy may be taken as proved by the prompt disappearance of the primary induration. The dose which is efficient

to this result will, if steadily persevered with, probably be efficient in preventing the development of other symptoms.

"I must admit that the gross total of cases of primary syphilis which have been under my care has not been so large as that which falls to the share of specialists, particularly those holding hospital appointments. More patients come to me in the secondary or later stages than in the primary. Still, my experience has been considerable, and justifies, I think, the general statements which I have ventured to make to you this evening. It is to be clearly understood that I have been speaking only of cases in which the induration was characteristic, and in which an interval of from five to seven weeks had occurred since the exposure. I have never allowed myself to diagnose a sore as infectious, or to begin mercury, except under these conditions.

"There is another class of cases which bear testimony, which is, I think, very valuable as regards the antidotal efficacy of mercury. I allude to those in which the patient comes under care with his rash fully out, and having as yet had no treatment. The possibility of aborting the rest of the malady in these is less certain, yet I think we may generally expect it with much confidence. If such patients will take mercury their symptoms will disappear, and if they will continue it there will be no relapses.

"In conclusion, I may express my hope that it will have been clear to all that my object in this paper has not been to claim credit for any particular method of treatment, far less to make boast of personal success. My wish has been to draw attention to a clinical fact which, although hitherto much ignored, or even denied, must have been for long more or less under the cognizance of all engaged in the treatment of syphilis according to modern rules. The fact to which I refer is that the early use of mercury does not only greatly shorten the duration of the primary phenomena, but that it also much modifies, and in many instances entirely prevents, those of the secondary one. I have indeed ventured to assert that, when circumstances favour the febrile stage of the exanthem, syphilis may be rendered wholly abortive. If we can accept this proposition, I feel sure that we shall have gained a step in the orderliness of our future work, and in reference to this the following problems seem to lie before us :—What plan of treatment is most successful in suppressing the febrile or secondary stage? Does the suppressing of this stage tend to prevent what are called reminders, or those minor, and for the most part local, symptoms which often intervene between the febrile stage and tertiary phenomena? Are those in whom the febrile stage has been aborted by artificial means more or less than others liable to tertiary phenomena? Is it possible by anticipatory treatment to prevent or abort the phenomena of the primary stage; and, if this be done, what is the influence upon the futher course of the disease? It has been well said that all men use syllogisms, whilst but few have studied logic; and in like manner I may remark that most of us have been practising more or less completely the abortive treatment of syphilis, though without giving it that name." —*London Hospital Gazette.*

THE HYGIENE OF PHTHISIS.

From a paper on the above subject by Dr. F. L. Flick, and published in the *Philadelphia Medical and Surgical Reporter*, we make the following selection :—

"Pulmonary gymnastics are powerful weapons against phthisis, and should be especially used by those who are unable to extricate themselves from the unhygienic surroundings and circumstances in which their necessities have placed them. Though the use of a gymnasium is very desirable for practising these, it is not necessary. The principle involved is ventilating the unused air-cells, and any combination of forced respiratory movements that will thoroughly inflate the lungs will accomplish this. Gradually filling the lungs with air whilst retracting the shoulders and extending the chest, or taking a deep inspiration whilst extending the arms above the head, and expiring whilst placing them parallel with the body, are two simple exercises which do all that is necessary, and can be taken without interfering with the most busy life, or causing fatigue. A habit should be made of thus ventilating the unused portions of the lungs, and it should be done at times when the purest air can be secured. The most practical germicide that we as yet know of for the bacillus tuberculosis is fresh air ; or, more correctly speaking, it furnishes the least favorable habitat for its development. A better oxygenation of the blood is, moreover, secured by such exercises, the circulation is stimulated, and, indirectly, the digestion and assimilation improved.

"As regards the hygiene of phthisis, when the disease is once established, it is based upon the same principles as that for its prevention. Sufficient nourishing food and sufficient fresh air,—these are the *sine qua non*. The prime object in every case of phthisis should be to secure a good digestion and assimilation. Every thing that is done should be done with this object in view. Good, nourishing, and easily digested food should be taken in abundance, and every care taken that the stomach be not deranged by indiscretions in eating and drinking, or by overloading. As soon as the body begins to be nourished, the lungs will improve. As an aid to digestion, outdoor exercise is very important. Without it the system cannot be made to use up a large quantity of food. Inasmuch as warm climates offer greater inducements to keep invalids out of doors, and make bedroom ventilation a little more agreable, they are highly commendable

to consumptives; but they are by no means essential to their well-being. A cold climate will do just as well, if the patient has the courage to endure the discomforts entailed by it. It is much better that a consumptive have home comforts in the worst climate in the world than that he be compelled to undergo the tortures of boarding-house or fourth-class hotel life at a health resort. In all warm climates the houses are built for warm-weather use, and no provision is made for the stray blizzard that occasionally comes along. Though the temperature may be very equable from day to day, there is always a marked variation between day and night. In consequence of the rapid radiation of heat, the houses become cool and damp during the night, against which there is likewise no provision, except in first-class modern hotels. In many places suitable food is difficult to obtain, even at the most extravagant prices. All in all, the average person who has consumption had better remain at home unless his home is in a large city, and then he should go into a neighboring contry, where he can secure home comforts and plenty of suitable food, let him dress warm, take outdoor exercise whenever he can, eat plenty of light, nourishing food, take ample rest and sleep, and he will get along much better in his native hearth than he would with small means in the most model consumption climate. It is important that the entire body be warmly clad in cold weather. Either silk or woollen clothing ought to be wore next to the skin. The circulation should be kept equable throughout the whole body, hence the extremities ought never to be allowed to become cold. When the feet get cold, the lungs become congested. Rubbing the body with a coarse towel has a good effect in equalizing the circulation. The ancients recognized this fact, and laid stress on it. Balneum alienum est, says Celsus. Sponge baths, if carefully taken, will do good. They should, however, be taken in a warm room, and followed by a rest. Sea-voyages used to be highly recommended in the early days of medicine, and theoretically, at least, ought to be beneficial in the first stages of the disease. The ocean offers a pure atmosphere, and frequently the salt air stimulates appetite and improves digestion. In the advanced stages of the disease, they are, however, impracticable, and should never be attempted.

"Gypsy life, or travelling through the country by easy stages, and camping out, is most beneficial to consumptives, even in advanced stages. The ancients had their patients carried from place to place in chairs. In the territories most remarkable cures are brought about by this mode of living. Persons unable to walk are hauled in wagons on improvised beds, and it is astonishing what a revivifying effect constant exposure in the open air has. But, though much can be done to ameliorate the condition of the consumptive, the most important duty of the medical profession at the present day is to lend its aid in bringing about such a change in public and private hygiene as to give the disease less chance for development."

CONSTITUTIONAL CAUSES OF THROAT AFFECTIONS.

By S. W. Langmaid, M.D., Boston.

The N. Y. Med. Jour., December 24, 1887.—While I would not be understood as undervaluing the minute and systematic description of morbid appearances and functional peculiarities of the upper respiratory tract, I would suggest that a most interesting and important lesson to be learned from such observation and description is, that all that is morbid in this region has underlying causes which *may* be external to the body but may be *intrinsic*, and the exhibition of natural or acquired idiosyncrasies of the individual.

It has sometimes seemed to me that our attention has been too commonly fixed upon the local morbid phenomena of diseased throats, and, again, that we are prone to consider climatic conditions as causes rather than factors in the production of such disease.

That atmospheric conditions do affect the respiratory mucous membrane no one doubts, but why such atmospheric conditions are operative at one time in the same individual, and innoxious at another time, is well worth our consideration.

That a pharyngitis may be the tell-tale of a poisoned or morbid condition of the general system is evident, when we think for a moment of the pharyngeal exhibition of acute diseases, of scarlatina, of measles, of typhoid fever, of syphilis, of phthisis, of sewer-gas poisoning.

Who can deny the morbid conditions of the system which, although as yet not well understood, are known some way to be due to wrong functioning in the chylopoietic system may be the *fons et origo* of many intractable faucial inflammations? That such is the case, I have enough evidence to direct successful treatment. The congested, excessively irritable pharynx of alcoholism is so well marked as to make a diagnosis unquestionable.

We must look further than the laryngoscope will enable us to see if we would rightly comprehend the causes of the congested naso-pharynx of the young adolescent. We must consider in young persons how much the process of the second dentition has to do with the stimulation of neighboring parts.

The enlarged submaxillary or cervical glands do not always indicate a scrofulous diathesis; at any rate, the abstraction of the decayed molar will frequently result in the disappearance of the obtrusive glands. And so it is with the enlarged tonsil.

I think I shall voice the experience of many when I say that one of the most intractable diseases which we are called upon to treat is chronic recurring coryza. In many cases the treatment

first advocated by our own members—the destruction of the supersensitive areas in the nasal chambers, or the removal of obstructing erectile tissues —seems to constitute a cure, but in other cases no allowable destruction of the mucous membrane or underlying structures seems to more than modify the severity of the seizures and the frequency of their occurrence. In such cases we must look beyond the mucous membrane.

Let him who has tried to banish with sprays and pencilings the long-existing sensation of a "lump in the throat, which rises and threatens to choke" his patient, try the exercising power of a dose of castor oil, and he will be surprised to learn that an overloaded colon has been trying to tell its story as stories are told—by the throat. How often will the paroxysmal cough be banished by the same procedure.

In my experience the magic effect of quinine upon an inflamed throat has been clearly shown in a few cases of former residents of a malarious climate, exhibited, I must confess as a *dernier ressort* when local applications had failed.

The familiar designation of one form of pharyngitis would seem to imply that Nature herself set the limit to unrestrained sermonizing.

"Clergyman's sore throat" exists to-day and teaches its lesson to those of us who study it, although it has long ceased to masquerade in our nomenclature in clerical habiliments.

It is a pharyngitis with the descriptive prefix *follicular*, viz., long continued, chronic. But such a pharyngitis is not peculiar to the sacred teacher. Its origin is not by any means in the necessary use of the voice. The sedentary, studious life, with resulting disordered digestion, together with other conditions inseparable from the profession of the priest, are quite enough to produce a throat affection which has been considered peculiar to clergymen.

Local treatment is the nature of *repair;* the constitutional and hygienic treatment must be in the direction of renewal of normal processes. The swollen and congested mucous membrane, the hypertrophied tonsils, the elongated uvula, and the prominent follicles must be regarded as symptoms only. The pain and discomfort, the spasm of the glottis, or the recurring vocal disability will not be banished for any length of time unless the underlying constitutional abnormity is removed.

AFTER-PAINS.

By Theophilus Parvin, M.D., LL.D., Prof. of Obs. and Diseases of Women and Children Jeff. Med. Coll. of Phila., Pa.

Va. Med. Monthly, October, 1887 :—By many practitioners, after-pains, if not excessive as to suffering or as to continuance, are regarded as beneficial—evil bringing good, hurt that causes healing. They claim that they are dependent upon uterine contractions, which secure thorough emptying of the uterus and normal retraction of the organ, and thus hemorrhage is guarded against, and uterine involution promoted. At least partial confirmation of this view is given by the well-known fact that these pains are more severe, other things being equal, after a rapid labor, or in case the uterus has been greatly distended as by pluriparous pregnancy, or by polyhydramnios. It is not my purpose to dispute this opinion as probably just in many cases. Nevertheless, it does not apply to all; and to make this position good, an inquiry must be made into the cause or the causes of these pains.

Almost all recent writers upon obstetrics explain after-pains as resulting from retained clots, or a clot, which the uterus endeavors to expel—a view almost the opposite of that which, in a past age, was held to explain the ascent of water in a pump; nature abhors a vacuum, so now the uterus abhors a plenum.

But without further reference to the etiology of after pains, I wish to suggest that in some cases the affection is of purely nervous origin. How often the obstetrician is reminded of the great differences in the response which the womb gives to irritant causes! Thus one pregnant woman is exposed to the greatest mental or physical shocks without miscarriage resulting, while in another it is produced by the most trival causes; the induction of premature labors is in one case effected within twenty-four hours by the introduction of a flexible bougie in the uterine cavity, while the same mean, conjoined with alternate vaginal douches of hot and cold water, may be used in another for a week before the desired result is accomplished. Now, the simplest and the true explanation of these different effects is found in the relative irritability of the uterus in different subjects—the organ is normally irritable in one woman, excessively so in a second, defectively so in a third. So, too, I believe that in some cases violent and tormenting after-pains may be the expression of excessive irritability of the uterus, and that just as we may have vesical or rectal tenesmus without any inflammatory change, and without there being in either bladder or rectum anything more than a drop or two of urine or of mucus requiring expulsion, so there may be a tormenting and very painful uterine tenesmus when the uterus has nothing to expel, and only the normal lochial flow passing off. Holding this view, I cannot regard after-pains as in all instances beneficent, but only evil. Of course I know that the use of quinine for the relief of after-pains is by no means new, but I believe it, in combination with opium, is the best treatment in case this suffering is caused by excessive irritability of the uterus.

When rheumatism seems to have finally settled in a certain joint, try this: Wrap around the affected part several thicknesses of flannel, first soaking them in cod-liver oil. Encase this in oiled silk; and each day remove the silk and pour on a teaspoonful of the oil.—Prof. Waugh.

THE TREATMENT OE RETAINED PLACENTA.

By Geo. F. Hulbert, M.D., late Supt. Female Hosp., St. Louis. Mo.

Weekly Med. Review :—1. The treatment of retained placenta is to be determined by the conditions present, as regards presence or absence of hemorrhage and the period of gestation.

2. Before the third month. Uterine contraction being always present, with slight hemorrhage ; ergot, hot vaginal antiseptic douche, rest, good food ;with pronounced hemorrhage or evidence of decomposition, curette, ergot, hot intra-uterine, at first, vaginal afterward, douche—rest, good food.

3. After third month, to and at term (*a*) inertia and no hemorrhage ; manipulations tending to excite uterine contractions, as kneading of body and fundus by hand on abdomen ; insertion of two fingers in vagina, supporting and elevating the uterus if necessary, fl. ext. ergot, hot douche ; electricity, in the order named. These failing, delay with work is proper for a reasonable time, the limit being an hour. Then insertion of the hand into uterus and deliver as in inertia with hemorrhage or adherent placenta.

(*b*) Inertia with hemorrhage ; where hemorrhage is slight and relaxation is of moderate degree, ergot, kneading, hot douche, electricity. No delay is proper save for the execution of the above means ; these failing the rules for the next condition are imperative. When relaxation and hemorrhage is pronounced, ergot, kneading of uterine body, insertion of hand into uterine cavity, and complete, clean, and effectual delivery of secundines, followed by hot intra-uterine antiseptic douche, and if necessary use electricity, hot vinegar, then stronger but less desirable styptics, should they be demanded.

4. When the retention is due to irregular contractions, ergot, mechanical stimulation by hand to the part demanding it. This not availing, insertion of hand and complete delivery, as in inertia with hemorrhage.

5. When adherent placenta is found, immediate separation by the fingers and delivery of entire contents of uterine cavity before withdrawal of hand, followed by hot intra uterine antiseptic douche.

The above is our creed, and in the forgoing will be found the reasons for the faith that is in us. I am satisfied they are based upon our understanding of scientific application of our knowledge and experience.

One word regarding "pulling on the cord," I advise no one to do it or not to do it, for the reason that I cannot impart the degrees of the pull, in pounds or any other exact measure; furthermore it is a very ineffectual means of delivering the placenta. I can only say that pulling on the cord is a natural and common practice with me. As far as the danger from inversion is concerned, that can be prevented by an intelligent handling of the uterine body with the hand on the abdomen. Any evidence of inversion will be readily perceived. Common sense and ordinary judgment will guide in the force applied.

TREATMENT OF QUINSY.

Northwestern Lancet:—Dr. F. P. Atkinson says in the *London Practitioner:* The effervescing citrates will be found useful in allaying not only this but all other kinds of glandular inflammations, and I order twenty grains of bicarbonate of potassium to be taken with fifteen grains of citric acid every four hours in a state of effervescence. Guaiacum, which has long been known to be beneficial in throat cases, is best given in the form of lozenges made up with black-currant jam, in accordance with the directions of the pharmacopœia of the Throat Hospital, Golden Square. One of these lozenges should be sucked frequently. Iodine, when applied locally in cases of glandular inflammation, is known either to reduce the enlargement or to hasten suppuration, according to the stage in which it exists ; and a gargle, containing from twenty to twenty-five minims of the tincture to the ounce of water, will be found particularly useful. This may be used by taking a little in the mouth and shaking the head from side to side. Port wine is an essential part of the treatment, and it is necessary for the patient to take from four to six ounces in the course of the day, besides plenty of beef tea and milk. By this method resolution is almost always brought about, and the patients are, with scarcely a single exception, able to resume their usual duties about the fourth day. The usual duration under the old methods of treatment was almost always from nine to ten days. I would particularly urge upon those who are willing to give the above-mentioned method of treatment a trial not to be discouraged if the patient complain o feeling no better or even worse for the first two days, but to persist with it all the same, and they will be certain to meet with the success they and their patients desire. Though the bowels are almost always confined, it is not advisable to administer aperients, since as soon as recovery takes place they are moved as regularly as possible, without any extraneous assistance. When suppuration has commenced in the tonsils (which may be looked for about the sixth day, and made out by great throbbing in the ear on the affected side), it is best to omit the effervescing citrates and guaiacum lozenges, and depend upon the iodine gargle, together with the port wine and beef tea. Suppuration is by this means hastened and suffering curtailed. In conclusion I would ask those who put this method of treatment on trial, to keep a record of their cases, and after a time make a report both of the successful and unsuccessful ones, so that we may arrive at really truthful conclusions concerning the disease.

PHYSICIANS AND DRUGGISTS.

The Indiana Legislature has passed a law declaring that "From and after the passage of this act, no pharmacist, druggist, apothecary or other person, shall refill more than once prescriptions containing opium or morphine, or preparations of either, in which the dose of opium shall exceed one-fourth grain, or morphine one-twentieth grain, except with the verbal or written order of a physician.

A violation of the law is declared a misdemeanor, punishable by a fine of not less than ten or more than twenty-five dollars.

Would not a similar law be in order in California? Such a law would not only benefit the apothecary, and the physician, but the patient. The proscription might be carried still further, and declare that *no prescription* should be filled a second time without the consent of the physician. It is this repetition of formulas, that not only detracts from the physician's fees (richly earned) but from his reputation—e. g. A physician writes a prescription for bronchitis; it relieves, and the prescription is given by the druggist to a patient suffering from aortic aneurism. It does not relieve, and the physician is considered of no account. Every medical man will understand the proposition. It is this "quacking over the counter," this assumption of medical knowledge gleaned from prescriptions,and from superficial reading of quack advertisements, that calls for reprobation. Let us instance a case not two hours old. A young man called for advice for gonorrhœa. He says: "I always take any patient who comes to the store. I have the prescriptions of several good physicians and I give them the medicine prescribed—first one, then another. By and by they get well; or they don't—but I don't seem to have the same luck with myself. I tried first one and then another, and really I am worse off every day. Now I come to you to get well.

Dr.—But if I give you my prescriptions you will use them for others.

P.—Yes, of course, I *must* do it, to bring business, so that my employer may keep me.

Dr.—Would you place the prescription on file?

P.—Not if I know it! My boss would be as wise as I, and use my knowledge, and discharge me as not being a better physician than himself. Don't *he* keep *his private formula* from me? He locks up his formula book, and I only do the rough work. He would not employ me if I could not prescribe for people who ask for advice in his absence. If I go to him, he looks in his book, and advises me what to give, and I give it. If it don't cure, we try some other doctor's prescription. If they don't get well, no matter,—we sell the medicine, and charge big prices.

Dr.—But suppose you sent them to a physician?

P.—Well, he would furnish medicine perhaps, and we would loose both goose and feathers. We like to get prescriptions for tough cases, and then we gain so much more; but doctors have dropped to it, and don't trust us more than they can help. Why, doctor, you would be astonished to learn how many physicians furnish their own medicine. Every doctor seems to have a pocket case, and if we get a prescription nowadays, it don't amount to anything. The doctors are shy of us, and don't send as many as usual. Now, doctor, I'll tell you something. All of your good prescriptions are put up as our own medicines, and advertised for the cure of the diseases for which you prescribed them. The store is full of them. Of course, I mean yours and others. If it was not for these, we would not be able to pay expenses.

Dr.—Well, my boy, my bill for you is——and I shall furnish medicine—to prevent you from using my prescriptions in the store.

P.—But, doctor, I have no money, but will send you patients enough to pay twice my fees. Will that do? other doctors will do that.

Well—no—commissions of that kind are not acceptable. You had better try some other physician.

This is no fancy sketch, but a verbatim conversation. Will any one ask why doctors keep the medicines they prescribe? They do not *sell* them, perhaps, but *give*, then the patient *must* return for a repetition of medicine, *and fee.—Pacific Record, San Francisco.*

CONTRIBUTION TO THE STUDY OF HYDRASTIS CANADENSIS.

.Givopiszew, of St. Petersburg, has recently made an elaborate study of this old American remedy, with the following results:

1. Aqueous extracts of hydrastis, even in large doses, are not poisonous to warm-blooded animals.

2. Hydrastis produces cardiac depression and consequent reduction of arterial tension.

3. It always produces uterine contractions. The aqueous extract is to be preferred for this purpose. The contractions of the pregnant uterus near term are most powerful, those of the virgin uterus weakest.

4. Large doses of hydrastis may induce premature labor after the fourth month.

The author sums up the clinical uses of hydrastis as follows:

1. Hydrastis is an excellent remedy for uterine hemorrhages due to inflammations or misplacements of his organ; also for profuse hemorrhages occurring about the menopause.

2. The uterine contractions produced by hydrastis are weaker than those produced by ergot.

3. The use of this drug is followed by no untoward symptoms. It produces no gastro-intestinal disturbance, but, on the contrary, will frequently relieve dyspepsia.—*Bulletin Gen. de Therapeutique.*

THE HARM OF MODERATE DRINKING.

It is very well known that hard drinking surely kills; it is equally well known that moderate drinking is usually injurious. There are, however, two forms of the latter habit: in one, the individual drinks moderately and only at his meals, in the other, he drinks over a bar, taking a "nip" of whiskey, a "cocktail," "fizz," etc., in accordance with the idiosyncrasy of his palate, his geographical location, or personal associations. These last-named indulge in what our continental brethren call "nipping" or "pegging," and the practice of nipping has been apparently shown by Dr. Harley and others to be injurious to health and life.

Dr. Harley gives the following telling statistics:

Death-rate of men between the ages of twenty-five and sixty-five.

MEN EXPOSED TO THE TEMPTATIONS OF "NIPPING."

	Liver diseases.	Urinary diseases.
Commercial travellers.....	61	44
Brewers	96	55
Inkeepers, publicans, vintners, barmen, and waiters.....	240	83

The comparative death-rates of men of the same age engaged in other industries, not exposed to the temptation of "nipping," are, again, as follows:

DEATH-RATE OF MEN NOT EXPOSED TO THE TEMPTATIONS OF "NIPPING."

	Liver diseases.	Urinary diseases.
Gardeners and nurserymen...	18	39
Printers.....	28	30
Farmers and graziers.....	41	31
Drapers and warehousemen...	35	37

In addition to the above Dr. Harley cites the following statistics of beer, which apply to Prussia:

PROBABLE DURATION OF THE LIFE OF MEN.

Age.	In the liquor trade.	Not in the liquor trade.
25.....	26.23	32.08
35.....	20.01	25.92
45.....	15.19	19.92
55	11.16	14.45
65.....	8.04	9.72

Further statistics are given, showing the extraordinary excess of mortality from liver disease among innkeepers, bar-tenders, vintners, waiters, and publicans, as compared with persons in other occupations. The ratio is as six to one.

To all this it may be said, on the other hand, that nothing lies like figures, and that, after all, the mortality rate is not greater, for example, in a whiskey-drinking country like Scotland, than in presumably temperate regions like certain States of New England or the West. It is more than probable that Dr. Harley's figures point to the truth; but the question rises, in view of the pretty even range of mortality in countries of temperate and "nipping" habits, whether, if liquor is taken away, some other death-producing agency does not set at work? We believe that the medical profession must, at any rate, accept the fact that "nipping" shortens life.—*N. Y. Medical Record.*

TREATMENT OF WARTS.

The methods of treating warts have undergone quite a revolution in the past few years. Everyone almost has employed nitrate of silver or nitric acid for their extirpation, and removal by the knife or ligature has also been a favorite procedure. Of late, however, it appears that the same end is obtained by internal medication. We were told not so very long ago, that by taking small doses of carbonate of magnesium daily, the warts would disapear. In a late number of the *Bristol Medico-Chirurgical Review*, Mr. Bingley G. Pullin gives a short account of the beneficial results he has obtained by giving arsenic internally. In the first case detailed, a young lady of 17, the hands were the seat of the warts, and a mixture containing liquor arsenicalis three minims, twice a day, was given, and in about a week the warts had disappeared. In another case of a boy of eight, two minims of liquor arsenicalis was administered twice a day: in two weeks all the warts but one had disappeared, and this was easily removed by the fingers. In a third case in a patient four years of age, one minim of the same drug effected a cure in about ten days, two doses of the medicine being given daily. Mr. Pullin says that he has treated a number of other cases with equally gratifying results, and he very pertinently remarks that in treating young children, especially, a painles method is of the highest advantage. The plan is one which is certainly worth trying. Another advantage, which is not mentioned, is the avoidance of sores. There is one point in connection which must not be forgotten. In all the cases reported, it was only the hands which were involved, or at least those are the only implicated parts which are mentioned. The question which naturally arises is, will this method act so favorably upon warts in other regions? If so, it would be of the highest value, for many persons are affected with warts of the face, neck, scalp, etc., who leave them go untreated on account of the terror which they have for the knife and caustics. —*St. Louis Med. and Surg. Journal.*

TIGHT LACING LESSENS THE FLOW OF BILE, at least in rabbits. Such is the conclusion arrived of by Dr. W. J. Collins after a series of experiments. The unfettered action of the diaphragm is essential to the normal flow of bile.

UTERINE HEMORRHAGE.

By William Goodell, M.D., Prof. Gynecology Univ. Penn., Phila., Pa.

Va. Med. Monthly.—Suppose a woman about fifty years of age, who has borne children, comes to you with the statement that at the age of forty-five the menses ceased, and that she had no discharge of blood from the vagina from that time until six months ago, when she again began to lose blood, what would you suspect? You should suspect cancer of the cervix. Why? Because as a result of her labors a laceration of the cervix has probably happened, and carcinoma has developed in the cleft of the tear. I will venture to say that in ninety-five out of a hundred cases this diagnosis would be correct. [That was my suspicion in a case which I had placed under the care of Dr. James B. Hunter, of this city, who found only fungoid degeneration, and cured the patient by dilating and curetting the uterus. An almost identical case occurred in the practice of Dr. A. P. Dudley, who presented the material removed by the curette to the N.Y. Path. Soc.—Ed.]

Suppose, however, that a woman, also about fifty years old, has not borne children, and that the menses have not ceased but have continued and increased in quantity, what then should pass through your mind? You should infer that the hemorrhage is probably due to one of two factors—either to a fibroid tumor, which is the more common, or to a polypus. The fact that she has not borne children would tend to eliminate the suspicion of carcinoma; for it is exceedingly rare to find cancer of the neck of the uterus in sterile women. I have, however, seen this in two instances, one of which, however, tends to strengthen the rule. This was the case of a lady, about sixty years of age, who had a large fibroid tumor of the womb, which in the process of enucleation had forced open the os to the size of a silver dollar, and was protruding from it. I wrenched the tumor off and removed it. Cancer subsequently developed in the cervix, which had been injured by the long protrusion of the tumor. The second exception came to my notice a few months ago. It was that of a married lady who, I am sure, has never borne a child. She had a cancer of the neck of the womb, from which she died. Carcinoma will sometimes attack the fundus of the uterus in the sterile, but this is also very rare.

THE MEDICAL TREATMENT OF NOCTURNAL EMISSIONS.

In a recent number of the *Wiener Medizinische Blätter*, Dr. Thor, of Bucharest gives some particulars as to the effect of antipyrin in cases of nocturnal emissions. Lupulin and camphor had been justly abandoned in such cases. Curschmann states that the sedative effect of lupulin on the genital organs, in spite of all the recommendations, was not proved. As to camphor, it has, according to his opinion, no better effect. Fürbringer is of the same opinion. Zeissl recommends it in the first place, as do Purgsz, and other writers. The effect of nux vomica arsenic and atropine is also often uncertain. Among all the remedies hitherto employed, bromide of potassium or bromide of sodium was the most useful. Diday recommends it to the exclusion of every other drug. Bromide of potassium, from two to five grammes in a glass of water, taken just before going to bed, will, according to his experience, exert a prompt effect and check the pollutions. The prolonged use of the preparations of bromide, however, as is well known, produced an acne-like eruption, and the use of the remedy had, for this reason, often to be discontinued. Dr. Thor states that he has found antipyrin an excellent substitute for the bromides. He gives it in doses of from half a gramme to one gramme, to be taken by the patient a short time before going to bed. In seven cases it had proved very successful, and checked the pollutions. No disagreeable after-effects were observed. In "neuroasthenia sexualis," in the sense of Beard, antipyrin could also be used with good results; but the dose had, in these cases, to be sometimes increased from one gramme to two grammes a-day.—*British Medical Journal*, Feb. 18, 1888.

THINKS THE STANDARD FOR MATRICULATION IS TOO HIGH.

The following letter from a member of one of the learned professions—a "Fizishan" practicing in a western town—was sent to us by a wholesale firm with whom the doctor desired to establish trade relations. The writer is evidently a gentleman of manifold attainments, and some pleasing surprises in the way of novelties in medicine and perfumery may be expected when the new laboratory is in working order.

The letter is printed *verbatim*.

"Sir, as i am goin into Patant medison this spring quite extensive i have ben advised to right to you and geat a catloug of you drugs and i ame goin to keep other medison as well as make my own and all kinds of perfumery to day i am makin 7 kinds of medisons and i can make as meney as will sell and i determan run a wholesale business and if you will send me a catlog of druges and if i can do bter with you than i can in Montral i will deal with you alltogether i remain youres Truly

Proff. ———.

"I send you a refernce from a drugist at home i hav delt with evry sence i commence to make medison."—*Com. Phar. Journal.*

STERILITY IN THE MALE.

Dr. Belfield emphasizes the fact, largely ignored in practice, that potence does not secure fecundity. Natural desire, complete erection, copious and well-timed ejaculation, and intense orgasm, may all be exhibited by an absolutely sterile man. The responsibility for a childless marriage is popularly, and but too often professionally, attributed to the wife; investigation of the husband is omitted, or limited to ascertaining that the act is normally performed. The wife is treated; intra-uterine applications are made, pessaries applied, the cervical canal enlarged; yet no conception takes place, because no normal spermatozoa are deposited.

In every case in which medical advice is sought as to barrenness in marriage, the first examination should be directed to the semen, no matter how vigorous and potent the husband may be. Sterility without impotence may be due to the absence of normal spermatozoa from the semen—azoospermism; or to the failure to ejaculate—aspermatism. The most frequent cause of aspermatism is urethral stricture; a contraction which may offer no serious obstruction to urination, may from the compression during erection prevent passage of semen. Gross suggested that the occlusion is produced wholly or partly by spasmodic contraction of the urethra at the sensitive point. A contracted meatus or tight phimosis in the same way might prevent the discharge. Other causes are congenital defects or malformations, inflammatory occlusions, concretions formed in the seminal vesicles or prostate, etc.

Azoospermism is the most frequent cause of male sterility, and is by no means rare. This cause was assigned by Kehrer to fourteen out of forty childless marriages. The most frequent causes are bilateral obliteration of the epididymis and vas deferens; bilateral orchitis; arrest of growth of the testicles—the latter common in cryptorchids. Of eighty-three cases of double gonorrhæal epididymitis, seventy-six were afterwards without sperm-cells in the semen. The facts cited show that childless marriages are often referable to the male.—*Indiana Md. Journal.*

THE UTILIZATION OF ANTISEPTICS.

We often neglect the use of antiseptics because they do not happen to be in convenient form at the time of need. The following method I have found to be of practical utility.

1. *Bichloride of Mercury Solutions.*—R. Corrosive sublimate, gr. 232; muriate of ammonia, gr. xx.; aqua, ℥ j.; glycerine, ℥ iij. Rub the bichloride and ammonia together in a wedgewood mortar, until thoroughly fine; then add the water, after this the glycerine. The ammonia is simply added to produce greater solubility of the mercury. Keep in a bottle with the prescription pasted on. One drachm of this solution contains 7¼ grains of the bichloride. One pint of water added to one drachm of this solution gives 1-1000. One drachm of the solution added to two pints gives 1-2000. One drachm to three pints gives 1-3000, etc. The 1-1000 solution may be used upon the skin preceding a surgical operation, and for washing the hands, towels, instruments, and to wash out the wound the first time after the operation. The 1-2000 is used in irrigating and to rinse the sponges. The 1-5000 may be used as a vaginal wash and for abdominal operations.

2. *Boracic Acid.*—We have the crystals and the impalpable powder. A solution of boracic acid may be kept for general use. ℞. Boracic acid, cryst., ʒ jv.; thymol, pulvis., gr. x. Dissolve the boracic acid in a pint of boiling water. Dissolve the thymol in an ounce of alcohol, then mix the two and add glycerine ℥ ij. This solution may be used with compresses on wounds, and may be diluted by adding one to eight parts of water, according to the case. The impalpable powder I use in surgical operations by means of a pepper box, applying it with impunity. In the extirpation of tumors, I fill in the cavity and rub it into the walls of the cavity; I inlay gauze muslin with it and apply as a dressing.

3. *Oil of cade.*—I regard this as an excellent dressing in surgical wounds. My method of using is as follows: I saturate cheese cloth with a mixture of one part of cade to three parts of pure olive oil, wringing out the gauze to dryness. A sheet or two of this over the wounds protects the parts and corrects all foul discharges. The adhesive process or the granulating process proceed nicely under its use.—*Am. Med. Jour.*

WART CURED BY ELECTRICITY.

By A. L. Smith, M. D.

A. B., medical student, æt. 19, had a large "seed" wart on the back of the last phalanx of the right index finger, which had come there years ago, and for which he had tried the usual well-known remedies, such as nitrate of silver, nitrate of mercury, and various acids, without effect.

I passed a steel needle attached to the negative pole of the galvanic battery well into the substance of it on three different occasions, at intervals of three or four days, with the result that in three weeks' time the wart was entirely gone, leaving so little mark behind it, that it is now almost impossible to see where the growth had been situated.

Cocaine in Operation for Hydrocele.—Dr. Petit writes to *Le Concours Medical*, that before injecting the following solution into the *tunica vaginalis*:

Take of

French tincture of iodine.....	45 parts
Iodide of potassium.....	2 parts.
Distilled water.....	100 parts.

He first injected:

Hydrochlorate of cocaine.....	2¼ grs.
Distilled water	5 drs.

In this way no pain was experienced from the operation.

ARTIFICIAL FEEDING OF INFANTS.

Dr. A. Jacobi, of New York, in a paper on the "Therapeutics of Infancy and Childhood," published in the *Archives of Pediatrics*, says:

The principal substitutes for breast-milk are those of the cow and goat. The mixed milk of a dairy is preferable to that of one cow. Cow's milk must be boiled before being used. Condensed milk is not a uniform article, and its use precarious for that and other reasons. Goat's milk contains too much casein and fat, besides being otherwise incongruous. Skimmed milk, obtained in the usual way, by allowing the cream to rise in the course of time, is objectionable, because such milk is always acidulated. The caseins of cow's and woman's milk differ both chemically and physiologically. The former is less digestible. There ought to be no more than one per cent. of casein in every infant food. Dilution with water alone may appear to be harmless in many instances, for some children thrive on it. More, however, appear only to do so; for increasing weight and obesity are not synonymous with health and strength. A better way to dilute cow's milk, and at the same time to render its casein less liable to coagulate in large lumps, is the addition of decoctions of cereals. It has been stated before, that a small amount of starch is digested at the very earliest age. But cereals containing a small percentage of it are to be preferred, Barley and oatmeal have an almost equal chemical composition; but the latter has a greater tendency to loosen the bowels. Thus, where there is a tendency to diarrhœa, barley ought to be preferred; in cases of constipation, oatmeal. The whole barley-corn, ground for the purpose, should be used for small children, because of the protein being mostly contained inside and near the very husk. The newly-born ought to have its boiled milk (sugared and salted) mixed with four or five times its quantity of barley-water; the baby of six months equal parts. Gum arabic and gelatin can also be utilized to advantage in a similar manner. They are not only diluents, but also nutrients under the influence of hydrochloric acid. Thus in acute and debilitating diseases which furnish no, or little, hydrochloric acid in the gastric secretion, a small quantity of the latter must be provided for.

THE TARIFF ON SURGICAL INSTRUMENTS.

Perhaps the statement of a few facts will assist the reader in realizing the extent of the grievance, and the justice of the plea, for which we ask co-operation.

1. Physicians are at the mercy of instrument-makers in regard to price, make and quality of finish because of the lack of sufficient competition.

2. The price of instruments made in this country is out of proportion to that paid for similar instruments on the continent of Europe.

3. Surgical instruments and appliances are so costly that but few doctors entering the profession can provide themselves with an outfit adequate to carry on a general practice. At present prices it is impossible for a country physician's income to sustain his investing in costly instruments, and as a result many simple cases, such as retention of urine, foreign bodies in nose or throat, deep-seated abscesses, etc., all of which could be relieved at once with the proper instruments, must either die from the immediate cause or from the effects of time lost in seeking skilful manipulation, or else they are frequently crippled and disfigured because the most intelligent help, though patiently given, is itself crippled for want of proper instruments.

4. The cheaper grades of instruments are either antiquated or so poorly made that they may prove a cause of failure in operations, sapping, as it were, the natural inclinations to surgery in its inception.

5. European instruments are from 25 to 75 per cent. cheaper than ours, and their introduction into the market will enable the mass of doctors to buy those of prime necessity, will bring down the price of home-made appliances, and oblige the makers to use good material and put a better finish to their work.

6. The removal of import duties on surgical and other instruments used by the profession, and on medicines in general, will produce the same results, as we all know it did on the article of quinine. —*Southern Practitioner.*

Savannah, Ga., January, 1888.

TREATMENT OF COLDS.

Dr. Whelan gives the following as a specific prophylactic and therapeutic remedy:

R. Quiniæ sulph.....gr. xviij.
Liquor arsenicalis.....Mxij.
Liquor astropinæ.....M.j.
Extract gentianæ.....gr. xx.
Pulv. gum acac.....q. s.

To make twelve pills.

Sig.—One pill every three, four or six hours, according to circumstances.

In early colds, the nose and pharynx being alone affected, it aborts at once.—*London Medical Record.*

Dr. Duncan, in the London *Lancet* gives three cases of entire relief from vomiting in uterine pregnancy, by painting the roof of the vagina and the cervix with a fifteen per cent. solution of cocaine. In one case the vomiting returned after a week, when a small plug of cotton wool soaked in the solution was inroduced into the cervix for a few moments. The vomiting did not again return.

HOW TO TREAT THE EYE, WITH CINDER, OR DUST, IN IT.

R. W. St. Clair writes the *Med. Summary* as follows :

Nine persons out of ten, with a cinder, or any foreign substance in the eye, will instantly begin to rub the eye with one hand, while hunting for their handkerchief with the other. They may and sometimes do remove the offending cinder, but more frequently they rub till the eye becomes inflamed, bind a handkerchief around the head and go to bed. This is all wrong. The better way is not to rub the eye with the cinder in at all, but rub the other eye as vigorously as you like.

A few years since, I was riding on the engine of the fast express from Binghampton to Corning. The engineer, an old schoolmate of mine, threw open the front window, and I caught a cinder that gave me the most excruciating pain. I began to rub the eye with both hands. "Let your eye alone and rub the other eye" (this from the engineer). I thought he was chaffing me, and worked the harder. "I know you doctors think you know it all, but if you will let that eye alone and rub the other one, the cinder will be out in two minutes," persisted the engineer. I began to rub the other eye, and soon I felt the cinder down near the inner canthus, and made ready to take it out. "Let it alone, and keep at the well eye," shouted the doctor *pro tem.* I did so for a minute longer, and looking in a small glass he gave me, I found the offender on my cheek. Since then I have tried it many times, and have advised many others, and I never have known it to fail in one instance (unless it was as sharp as a piece of steel or something that cut into the ball, and required an operation to remove it). Why it is so, I do not know. But that it is so I do know, and that one may be saved much suffering, if they will let the injured eye alone, and rub the well eye. Try it.

GRAVITY AS AN EXPECTORANT.

It is claimed in *The Polyclinic* that in cases of pneumonia, where there is great embarrassment of breathing from accumulation of secretion in the bronchial tubes, great benefit may often be derived by inverting the patient and having him cough violently while in this position. It is easily accomplished by a strong assistant standing on the patient's bed, seizing the sick man's ankles, turning him with his face downward, and then lifting his feet four or five feet above the level of the mattress. If the patient, with his face over the edge of the bed and his legs thus held aloft, will cough vigorously two or three times, he will get rid of much expectoration that exhaustive efforts at coughing failed to dislodge when not thus aided by gravity. Life has been saved by repeated performances of this manœuvre in pneumonia accompanied with great cyanosis, due to inundation of the bronchial tubes with mucous secretion.

READ MEDICAL JOURNALS.

I secured a very important case, many years ago, and through this one case a number of others were brought to me. I never knew until months afterwards how I happened to be selected. It was in this way : One night, at quite a late hour, I was called to see the family of a prominent New Hampshire official, temporarily staying in our town, to whom I was a perfect stranger. After I had discharged myself, and quite a while afterwards, I learned that as soon as this gentlemen found that he required a physician, instead of asking the landlord of his hotel, or appealing to some drug store for the name of a doctor, he took a carriage and drove to the house of a postmaster. "I want a doctor," said he. "Tell me which one of the doctors of this city takes the largest number of journals." The postmaster referred him to me. As the gentleman was leaving the house he said to the postmaster : "A man who takes the journals of his profession is well read and up with the time, and that is the doctor I want, to treat me and my family."—*T. L. Brown, in the Medical Advance.*

SOLUTIONS FOR WASHING OUT THE BLADDER.

Ultzman, of Vienna, uses the following with good results: For an irritable bladder, lukewarm water with a little tincture of opium ; or solution of cocaine, ¼ per cent.; or resorcin, ½ per cent. ; or carbolic acid, 1/6 per cent. When urine decomposes in the bladder, solutions of potassium permanganate, 1/10 per cent., or 3 drops of amyl nitrite to a pint of water. For phosphaturia 1/10 per cent. salicylic acid.—*Centralblatt fur Chirurgie.*

FÆCAL ACCUMULATION.

Worrall ("*Australasian Med. Gaz.*," Dec., 1887) reports a case of fæcal accumulation, in a girl thirteen years of age, which presented the appearance of a solid tumor, hard and nodulated, distending and nearly filling the abdomen. The rapid growth and stony hardness of the tumor, together with the cachectic appearance of the patient, seemed to indicate a malignant growth, but laparotomy revealed the true condition of affairs. The patient recovered.

Professor Pancoast showed at his clinic, a few weeks ago, a case of restored hip-joint. In this case, that of a young woman, the femur had been dislocated into the thyroid foramen, and had there become anchylosed. The femur was much everted and displaced laterally, causing great deformity. Last spring Prof. Pancoast dislodged the neck of the femur, put the bone in place, and the operation has resulted in an excellent joint, with the leg in proper position.

SOME FORMS OF NEURALGIA TREATED WITH THEINE.*

By Thomas J. Mays, M.D., of Philadelphia, Pa.

In treating this case, neuralgia of the sciatic nerve, I would suggest the hypodermic injection of theine, the beneficial action of which in such cases you have repeatedly seen at this clinic. You will remember that in the experimentation which I did in working out the physiological action of this drug, I found that its analgesic or anæsthetic influence extends from the central origin of the nerve along its trunk to the periphery; therefore, in order to get its remedial effect, it must be introduced at the central seat of pain—that is, over the left side of the sacrum, and not below the hip or at the knee. Another fact was brought out during these experiments, and that is, that theine has practically no narcotic or stupefying properties, even in large doses, and seems to expend all its influence on that portion of the nervous system which is located below the seat of injection—leaving the more central parts intact. You will observe, therefore, that theine gives you the analgestic or anodyne effects of morphia and atropine without the central narcotic effects of the two latter agents. I now introduce half a grain of the drug under the skin directly over the origin of pain, and if the drug is at all indicated in this case, you will find that it brings relief in less than five minutes. Its introduction causes a little more pain than the injection of morphine, but I have never known it to produce any inflammation or abscess. The injection has now been made two minutes, and on being questioned, he expresses himself as being relieved. On being asked to sit down and then to rise, he says that he experiences very little discomfort in going through those bodily movements. In addition to the theine we shall order him ten drops of tincture of iron and one grain of quinine four times a day. We shall let him go now, and ask him to return to-morrow. As a rule, the pain never returns in its original force, and if the treatment is followed up, three or four more injections, administered every second day, will relieve him permanently. It is important, of course, to build up the system with tonics and good nutritious food. The action of theine seems to be most satisfactory when the pain is of a nervous rather than of a muscular nature, although I have seen it act very well in painful affections of the back, which are commonly believed to be of a myalgic character.

On account of the low solubility of theine, it is advisable to use it according to the following formula :—

Thein.,			
Sod. benzoat.,	aa	℈ j	
Sod. chlorid.,		gr.x	
Aquæ destillat.,		f ℥ j	M.

Sig.—Six drops equal half a grain of theine. Dose, from three to twenty drops.

*Extract from Clinical Lecture in *The Polyclinic*, June, 1887.

CHLORIDE OF AMMONIUM IN THE TREATMENT OF DISEASES OF THE LIVER.

Surgeon-General W. Stewart, in a communication on this subject to the *Lancet*, October 22, 1887, refers to a former communication of his in which he showed that, in hepatic congestion, a local depletion of the portal capillaries is effected by each succeeding dose of chloride of ammonium, and that this depletion, unlike that obtained by other measures, was not attended with depression. After stating that, with the exception of Professor Aitken, the other men in England who had used the treatment had not given the necessary attention to diet and management, without which successful results could not be obtained, he proceeds to detail the characteristic symptoms produced by the drug in hyperæmia of the liver. These symptoms occur shortly after the medicine is taken, in from five minutes to half an hour. Sometimes a shock is felt, as if "something gave way" in the side; at other times a succession of shocks is experienced in the hepatic region, accompanied, or not, by a pricking sensation ("pins and needles"), or, as if cold water were trickling down the side; or the action is described as that of "pulling" from one hypochondrium to the other, or from the margin of the right costal arch upward and backward, as if through the liver; or a "clawing," "working," or "gnawing" sensation is spoken of as felt by the patient. With the local actions excited in the liver and related parts motor impulses are similarly communicated to the muscles of the intestinal canal, thus increasing peristalsis.

In addition to the administration of the drug, the patient should be put to bed, and should have a urinal or bed pan constantly at hand. No solid ood should be given; and wine, beer, or other alcoholic stimulants must be strictly prohibited. Small quantities of milk and beef tea are recommended, and the free use of barley water, as a drink. If diarrhœa exist, a pill of two grains of mercury and three grains of Dover's powder, repeated every two hours until four or five are taken, willbe found the most effectual means of checking it, without the risk of setting up gastro-intestinal irritation. Looseness of the bowels does not, however, contra-indicate the chloride of ammonium. The only thing which contra-indicates the immediate use of the drug in acute cases is the existence of a combined hot and dry state of the skin, with pyrexia. Under such circumstances, its use should be preceded by a few small and frequently repeated doses of solution of acetate of ammonium, till the skin is rendered moist. Formentations or hot bran bags applied to the seat of the pain in the side will be of use in aiding determination to the skin generally.

The author gives the drug in doses of twenty grains three times daily.—*Reporter.*

A NEW METHOD FOR SUPPLYING THE CONTINUOUS OR GALVANIC CURRENT IN THE TREATMENT OF FIBROID TUMORS OF THE UTERUS.

By A. B. Carpenter, M.D., Cleveland, O.

Every physician who has had occasion to use electricity knows well the difficulty he has experienced in keeping his battery in working order.

Change in temperature, the dry and moist condition of the atmosphere, evaporation, polarization, the frequent inspection, renewal of the battery elements and fluids, together with the labor and expense incurred, has placed a tax upon the time of the busy practitioner, and made the operating of large batteries no trivial matter and withal a burden.

The treatment of fibroid tumors of the uterus, according to the Apostoli plan or method, necessitating, as it does, a large number of cells, has only resulted in increasing this burden, and, I venture to predict, that after the renewal, once or twice a year, of the battery elements, to say nothing of the labor in keeping the fluids in proper condition, will necessitate not a few physicians to discard this valuable form of treatment, and result in expensive plants falling into comparative disuse.

So long as electrolytic work was confined to the use of a small number of cells, the labor and expense of keeping in order was proportionately light; but with our increasing knowledge of the subject, together with the more general use of the milliampère-metre, whereby we are more intelligently, as well as accurately, informed of the strength of the current used, and thereby giving us the knowledge to administer this form of treatment in great strength on the basis of exact dosage, the task of caring for batteries, made up of from seventy-five to one hundred and fifty cells, impose a task that is something formidable.

Dr. F. H. Martin has called the attention of the profession to a small dynamo that he has had constructed, with a view to the supplanting of the cumbersome battery, and claims for it both the electrolytic and galvano-caustic currents. It is designed, to be run by an electric motor or any other convenient power. I had the pleasure of witnessing a test of the machine while on a visit to Chicago a short time since, and must say that it worked most admirably. I would venture the suggestion, however, that the noise made in running will be somewhat objectionable to it for office use.

The device which we have the pleasure of calling the attention of the profession to consists simply in that of using the current of the incandescent lighting system direct from the street wire passing the door—Thompson-Houston or Edison. We have the wire of the former system placed in our office, and by the means of a rheostat resistance sufficient to reduce the current to a minimum is interposed then by the use of an ordinary switch-board, the current is increased or diminished according as resistance is cut in or out. A milliampère-metre is made use of, whereby the current is accurately measured while the patient is in the circuit

The device is absolutely safe, as the entire voltage of the wire can be handled without the rheostat being used. My wire furnishes a very smooth continuous or galvanic current, with an electromotive force of one hundred and ten volts with a maximum strength of 11-20 of an ampère, equal to about eighty Leclanché cells. This current is constant, does not vary in voltage, and is always ready night or day, as the main line from which my connections are made is used for commercial purposes, and furnishes lighting for basements, dark shops, and rooms. This, I am informed, is the case in all large and in many small cities, so that little trouble will be met with in securing a wire with a day current. When a wire is once placed in our office, the task of caring for a battery of cells is at an end, and we have an apparatus that is at once always ready, reliable, economical, cleanly, and durable. The rapid introduction of the incandescent lighting system, together, will place within the reach of very many physicians this current for electrolytic work.

The charge for the annual rental of the wire is $10, not including the cost of putting in, which, if the main line passes the door, should not exceed $5. This device, as will be seen, does away with cells entirely, as well as the time, trouble, and expense of keeping them in order, and I venture to express as my opinion that we have a current superior to any that it is possible to have generated from chemical action, besides economy of room, which is not a small item in cramped quarters.

A word regarding the danger from contact with the electric-light wire. The Thompson-Houston or the Edison incandescent system of an electromotive force of one hundred and ten volts, and of a strength of 11-20 of an ampère, is harmless, *and must not be confounded with the arc system of Brush and others, as the strength of the latter is six ampères, and of course dangerous and must* NEVER *be used.*

For the purpose of meeting and providing against any unforeseen conplications, as well as to anticipate criticism, I have placed at the office terminal of the wire a fuse box, the connections of which are so constructed that they will instantly melt, thus breaking the circuit, should anything unusual occur. Then if it is remembered that the entire voltage amounts to only about eighty Leclanché cells, I think it will be recognized that we have a current at once safe and practical.

I am under obligations to Mr. William D. Graves, of this city, for perfecting and superintending the construction of my apparatus, which, so far as I can now see, fulfils the object for which it was designed, viz., that of supplying the continuous or galvanic current, independent of battery cells.

I may say that I have had the apparatus in

daily use since its completion some weeks since, and my expectations have been fully realized by the simplicity and beauty of its action. The apparatus is not patented, and I shall endeavor to place the models in the hands of some reputable electric manufacturing company to insure the profession against extortion.

THE TREATMENT OF WOUNDS BY IODOFORM TAMPONS.

Dr. F. Bramann reports (*Archiv für Klinische Chirurgie*, Berlin, 1887) the results of treatment of wounds in Von Bergmann's clinic for some years past. The gauze employed is sterilized by means of steam at 212°, and after drying may be pregnated with an antiseptic solution. The sterilized gauze is used in cases of trifling operations in small wounds. In larger wounds with more profuse secretion, it was thought best to obtain whatever advantage could be derived from the impregnation with corrosive sublimate, especially as the patients and operators are in immediate vicinity of an audience coming direct from the anatomical rooms. The cotton employed is of late years merely sterilized. The towels, gum cloths, sponges, etc., are treated in a like manner. The silk in sutures is wound on glass or metal spools, sterilized by steam, and inclosed in metal caskets. The catgut used for deep stitches (stitches of relaxation), and for ligatures, is kept ten to fourteen days in a solution of 4 parts bichloride, 800 of alcohol, 200 distilled water. This is frequently renewed. The catgut is then changed to an alcoholic sublimate solution of 1 to 800 alcohol and 200 parts of water, and is taken direct from this. The preparation of the patient consists in giving full baths, washing the region of operation with soap and water, shaving the part, rubbing the skin with ether, and disinfecting it with from 1 :1000 to 1 :2000 solution of sublimate. The instruments are kept in a three per cent. solution of carbolic acid. During the operation the wound is often irrigated with 1 :2000 bichloride solution. In operations in the abdomen, the pleural cavity, the mouth rectum and bladder, salicylic acid 1 :1000, or boric acid 1 :2000 is employed, and at the end of the operation a solution of idoform in ether is generally used.

Next to strict antisepsis, the complete stoppage of bleeding is regarded as the chief agent in procuring union by first intention.

When the wound is dry, and the smallest bleeding vessels have been tied, the suture is applied with or without drainage, but only in those wounds which are considered absolutely antiseptic, and have not been infected through previous suppuration or contact with unclean materials. Among the cases treated in this manner are included all extirpations of tumors, removals of breasts, amputations, osteotomies, etc.

In wounds where the bleeding can not be entirely stopped, the formation of a large clot is objectionable, not only on account of the pressure which it may make, as in fractures of the skull, but because of the risk of decomposition and blood poisoning. Although such clots may, through absorption and organization into connective tissue, aid in the process of repair, they sometimes remain fluid for long periods, and during that time are a source of danger. Therefore when it is impossible to dry the wound absolutely, or where there is the least suspicion that it is not entirely aseptic, after thorough disinfection with 1 : 1000 bichloride solution, and with an ethereal solution of iodoform applied to the wound by means of a syringe, it is loosely packed with strips of iodoform gauze of several feet in length, and three to four inches broad. They are applied so that the larger part of each strip lies in the wound, and the ends come out at the angles. The sutures were formerly put in at this time, but this has been abandoned on account of the difficulty in keeping them disentangled, and of their adhesion to the iodoform gauze. The patient is now anæsthetized a second time for the application of the sutures. The tamponed wound is covered with sublimate gauze and cotton, and an antiseptic bandage. If the secretions make their way through the dressings, the superficial layers are renewed, but the iodoform gauze is allowed to remain undisturbed for two days. If it is then removed by gentle traction on the ends hanging out of the wound, the latter is found clean, unirrigated, not reddened, absolutely dry, and it is only very exceptionally that a ligature is required. Careful suturing, with or without drainage, has resulted invariably in union by first intention, even in those cases in which, for any reason, as great weakness, or for the stoppage of bleeding from large vessels, the tampon has been left in from four to six days. His report of his result is extremely interesting, includes a large number of important cases, and appears to confirm his estimate of the value of this method.—*American Journal of the Medical Sciences.*

REMEDY IN ACUTE CORYZA.

A correspondent from Prairie du Chien, Wis., Dr. A. F. Samuels, writes, recommending highly the following preparation in acute coryza :

R Pulv. camph.	-	-	3 j.
Chloroform -	-	-	3 j.
Acidi benzoic	-	-	3 ss.
Adipis - -	-	-	3 j.

To be applied ad libitum in the nostrils with the little finger. The above differs only slightly from a preparation which has been very favorably received of late in certain irritable conditions of the skin, consisting of equal parts of camphor and chloral, diluted with about ten times its weight of vaseline or lard. It is an excellent application on the skin, and we should expect it to give satisfaction also in the nose. Our expectation is increased by the experience of our correspondent.

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OF THE DUTIES OF PHYSICIANS TO THEIR PATIENTS, AND THE OBLIGATIONS OF PATIENTS TO THEIR PHYSICIANS.

ART. II.—*Obligations of patients to their physicians.*

1. The members of the medical profession, upon whom is enjoined the performance of so many important and arduous duties toward the community, and who are required to make so many sacrifices of comfort, ease and health for the welfare of those who avail themselves of their services, certainly have a right to expect and require that their patients should entertain a just sense of the duties which they owe to their medical attendants.

2. The first duty of a patient is to select as his medical adviser one who has received a regular professional education. In no trade or occupation do mankind rely on the skill of an untaught artist; and in medicine, confessedly the most difficult and intricate of sciences, the world ought not to suppose that knowledge is intuitive.

3. Patients should prefer a physician whose habits of life are regular, and who is not devoted to company, pleasure, or to any pursuit incompatible with his professional obligations. A patient should also confide the care of himself and family, as much as posible, to one physician: for a medical man who has become acquainted with the peculiarities of constitution, habits and predisposition of those he attends is more likely to be successful in his treatment than one who does not possess that knowledge.

A patient who has thus selected his physician should always apply for advice in what may appear to him trivial cases, for the most fatal results often supervene on the slightest accidents. It is of still more importance that he should apply for assistance in the forming stage of violent diseases; it is to a neglect of this precept that medicine owes much of the uncertainty and imperfection with which it has been reproached.

4. Patients should faithfully and unreservedly communicate to their physician the supposed cause of their disease. This is the more important, as many diseases of a mental origin simulate those depending on external causes, and yet are only to be cured by ministering to the mind diseased. A patient should never be afraid of thus making his physician his friend and adviser; he should always bear in mind that a medical man is under the strongest obligations of secrecy. Even the female sex should never allow feelings of shame or delicacy to prevent their disclosing the seat, symptoms and causes of complaints peculiar to them. However commendable a modest reserve may be in the common occurrences of life, its strict observances in medicine is often attended with the most serious consequences, and a patient may sink under a painful and loathsome disease, which might have been readily prevented had timely intimation been given to the physician.

5. A patient should never weary his physician with a tedious detail of events or matters not appertaining to his disease. Even as relates to his actual symptoms, he will convey much more real information by giving clear answers to interrogatories, than by the most minute account of his own framing. Neither should he obtrude upon his physician the details of his business nor the history of his family concerns.

6. The obedience of a patient to the prescriptions of his physician should be prompt and implicit. He should never permit his own crude opinion as to their fitness to influence his attention to them. A failure in one particular may render an otherwise judicious treatment dangerous, and even

fatal. This remark is equally applicable to diet, drink and exercise. As patients become convalescent, they are very apt to suppose that the rules prescribed for them may be disregarded, and the consequence, but too often, is a relapse. Patients should never allow themselves to be persuaded to take any medicine whatever, that may be recommended to them by the self-constituted doctors and doctresses who are so frequently met with, and who pretend to possess infallible remedies for the cure of every disease. However simple some of their prescriptions may appear to be, it often happens that they are productive of much mischief, and in all cases they are injurious, by contravening the plan of treatment adopted by the physician.

7. A patient should, if possible, avoid the *friendly visits of a physician* who is not attending him—and when he does receive them, he should never converse on the subject of his disease, as an observation may be made, without any intention of interference, which may destroy his confidence in the course he is pursuing, and induce him to neglect the directions prescribed to him. A patient should never send for a consulting physician without the express consent of his own medical attendant. It is of great importance that physicians should act in concert; for, although their modes of treatment may be attended with equal success when applied singly, yet conjointly they are very likely to be productive of disastrous results.

8. When a patient wishes to dismiss his physician, justice and common courtesy require that he should declare his reasons for so doing.

9. Patients should always, when practicable, send for their physician in the morning, before his usual hour of going out; for, by being early aware of the visits he has to pay during the day, the physician is able to apportion his time in such a manner as to prevent an interference of engagements. Patients should also avoid calling on their medical adviser unnecessarily during the hours devoted to meals or sleep. They should always be in readiness to receive the visits of their physician, as the detention of a few minutes is often of a serious inconvenience to him.

10. A patient should, after his recovery, entertain a just and endearing sense of the services rendered him by his physician ; for these are of such a character, that no mere pecuniary acknowledgment can repay or cancel them.

SACCHARINE.

The article of sugar enters so largely into our ordinary diet that the diabetic patient and those suffering from polysarcia find it a terrible hardship to be deprived of it. The chemical curiosity of the laboratory, saccharine had not long to wait before being turned to useful account in the treatment of these two pathological conditions. Owing to its being excreted by the kidneys in exactly the same condition in which it is ingested, it can have no injurious effect upon the patient, and in any case the amount required to sweeten food is exceedingly minute. Mr. Dyer of Philip's Square showed us the other day some little tablets each containing one grain of saccharine, and one of which he assured us was amply sufficient to sweeten a large cup of coffee.

BICHLORDE OF MERCURY.

At the same time our attention was called to some capsules, each labelled. poison, packed in boxes of twenty-five, and each of which capsules containing enough corrosive sublimate to make, when added to one pint of warm water, a 1 in 1000 solution. We have for some time past been using tablets of the same size and strength in our obstetric and gynecological practice, and have ound them very convenient, but these labelled capsules add the element of safety to that of convenience.

COMPOUND MEDICINES.

Sir Dyce Duckworth, M.D., of London, says: There is a great tendency now to employ concentrated preparations and to use drugs singly. This results from laboratory rather than from bedside research. There is less polypharmacy now than formerly, but I am satisfied that there is also less good prescribing than in my student days. The art of combining drugs has been much lost, and I think the practice of physic is by so much the poorer.

I have no doubt that these opinions will prove shocking in some quarters, but I simply state what I believe to be true. It is, I think, certain that some drugs are more effectual in combination with others than when given by themselves.

PERSONAL.

Dr. Rollo Campbell (M.D., Bishop's College, 1887) passed the first portion of the examination for the Licentiate Diploma of the Royal College of Physicians, London, on the 4th and 13th of this month. Last month Dr. Campbell was elected one of the attending staff of the Montreal Dispensary, and granted leave of absence.

Dr. McClure, late Superintendant of the Montreal General Hospital, intends to devote his life to the work of a Medical Missionary in India. Dr. McClure intends visiting England the first week in June, but will return to Montreal, before taking his final departure for the scene of his future labors.

Dr. Campbell, the Editor of this Journal, left for England on the 31st March by the Cunard SS. Umbria. He will return early in May. This will account for the want of attention which some business letters have received.

Dr. Gardner, Professor of Gynæcology, who has been quite ill, is, we pleased to know, on a fair way towards convalescence. At present he is sojourning at Atlantic City, U.S.

Dr. Clarke (M.D., Bishop's College, 1888) has left for Edinburg, where he proposes presenting himself for the triple Scotch qualification.

Mr. Jack of Bishop's College has been appointed Resident Clinical Assistant at the Western Hospital, Montreal.

NOTICES OF BOOKS.

We beg to acknowledge the receipt from the enterprising firm of publishers, Messrs.Geo. Davis & Co., of Detroit, a very neat and interesting little work entitled "A New Treatment of Chronic Metritis and Endometritis by Intra-Uterine Chemical Galvano Cauterizations," by Apostoli, of Paris, and translated into English by A. Lapthorn Smith, lecturer on gynecology in Bishop's College, Montreal. The book contains chapters on electrical tools, operative procedure, general considerations, conclusions, and appendix. The first part of the work is really an exposition of Apostoli's method of applying the continuous current, either positive or negative according to the indications to fibroids as well as to other hypertrophic and hemorrhagic diseases of the uterus, while the appendix gives one a very fair idea of the uses of the interrupted current in the various functional derangements of that organ.

We clip the following reference to it from the *Cincinnati Medical Journal* for April: "Apostol, claims, and justly, too, that he has endowed intra-uterine therapeutics with one more arm, which is precise, mathematical, dosable, and localizable, which may be administered in the smallest doses and increased without danger, at the will of the operator. Owing to Dr. Smith's familiarity with the language, the translation is a most excellent one."

It is for sale by Ashford, bookseller, Dorchester St., Montreal, price $1.00.

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Original Communications.

OBSTETRICS AND GYNECOLOGY.

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At the Brompton and Sussex Medico-Chirurgical Society, a paper was read, (*N. Y. Med. Record*, 9th June, '88) by Sir Spencer Wells, one of the greatest living abdominal surgeons, or perhaps indeed the greatest who has ever lived, on the electrical treatment of diseases of the uterus.

He stated that after visiting Apostoli's clinic, and carefully examining 60 of his cases, the conviction was irresistible that though the method might not have reached perfection, the work so far as it went was good. If the women were not radically dispossessed of their tumors they were symptomatically cured. After enumerating the various forms of uterine disease under Apostoli's care, he says: "In the treatment of these conditions, instead of scraping and cauterizing the cavity with the curette, or caustics, or fire, Apostoli does the same thing with a pole of the galvanic battery. We give ergot, or mercury, or iodine, or bromine, in the hope of altering the nutrition of the diseased mass; he sends a disintegrating current through it. We castrate to cut short a woman's sexual existence; he seeks to quiet down neurotic sensibility, and induce regularity of ovarian function. Where we proceed to a root and branch extermination, he proposes a denutritive paralysis of the uterine substance. Time will show whether, and how far, he surpasses us in his results."

"Where the object is mainly to suppress hemorrhages," he says "electrical treatment has decided advantages over other practices. Should the tumor be growing, but not advanced beyond the limits of reasonable surgical interference, balancing the comparative risk I should be disposed to put the matter to the test; since, in case of failure, the more hazardous operation of removal can still be done. In my opinion with the option before her, it would be neither wise nor charitable to give a patient strong advice in favor of immediate cutting operation."

My own experience fully bears out his opinion when he says: "Experience seems to show that there is a group of cases, numerous as they are troublesome, of chronic metritis with enlargement and surrounding deposits, which may be cited as pre-eminently eligible for electrical treatment; they are as regards the patient, painful and exhausting to the judicious surgeon, they are exhausting by their rebelliousness, and in some rash hands they have opened the way to practice more lamentable than the disease. It will be one of the crowning merits of electro-therapeutics, if proved to be equal to bring relief to these patients. Recent reports give good reason to hope that this end may be realized by a careful use of the positive galvano puncture."

In a late issue of this JOURNAL was published the magnificent testimony of Keith, the greatest of Scotch abdominal surgeons in favor of Apostoli's method. As I was the first in Canada to put his method into practice, this testimony of Sir Spencer Wells is especially pleasing to me. When such men as Spencer Wells and Keith believe in it, I can hardly find any room for doubt.

I have at present a number of cases under treatment of hyperplasia uteri, and of chronic metritis and endometritis, in many of which the most urgent symptoms was hemorrhage, which the positive galvano cautery has never failed to cure, on the one condition however of using it strong enongh.

In obstructive dysmenorrhœa it affords a safe, easy and almost painless method of opening the stricture at the internal os. I hope shortly to publish a number of these cases in detail.

It has often been stated that the dangers of specialism are to be found in the tendency of its devotees to so concentrate their attention on the diseases of their special organ that they fail to see the general disorders of the whole system, on which very often the special disease depends. It is a healthy sign therefor of the progress of Gynecology to see in the *Centralblatt fur Gynecologie*, March 31, 1888,an article by a leading writer entitled " the Cure of Prolapsus Uteri by *Exercise* of the *Pelvic Muscles* and Methodical Elevation of the Uterus." It is known as the method of Brandt of Stockholm. The movements are of three kinds, elevation of the uterus, opposed movements of the hipjoint, and percussion of the lumbar and sacral regions. The patient is placed on a couch in the lithotomy position ; the operator stands at her left side facing her, and presses the palms of his hands deeply between the symphisis and the fundus uteri, while at the same time an assistant keeps the uterus anteflexed by his finger introduced into the vagina. The operator grasps the uterus and draws it upwards, then allows it to sink back into its place ; at the same time the finger of the assistant follows the organ upward, and by pressing on the anterior fornix, prevents it from becoming retroverted. This manœuvre is repeated three times at each séance.

The patient being in the same position, adducts the thigh, bringing the knees and heels in close contact ; the operator, sitting beside her, abducts the limb, while the patient opposes him as strongly as possible. When abduction is complete, he seeks to adduct, the patient opposing as before. The percussion movements consist in light taps given with the edge of the open palm.

A successful case is reported of a woman with complete procidentia of 31 years standing. Pessaries had been tried in vain, and the patient would not consent to an operation. From the first day on which this treatment was adopted the uterus remained within the vagina, after three and a half months the uterus remained in its normal position, and the cure was apparently permanent. (I reported a case a month ago in *American Journal of Obstetrics*, in which the same result was obtained by putting the pelvic muscle through a course of gymnastics, by means of the faradic current of quantity.)

The writer's observations led him to the following conclusions : the opposed movements of the hip are the most important factors in promoting a cure. Elevation of the uterus tends simply to correct the retro-displacement which is always present in cases of prolapsus, and not to fix the organ in its natural plane in the pelvis. During opposed adduction there is an undoubted contraction of the muscles forming the pelvic diaphragm. This may be readily demonstrated in the case of the levator ani, especially when the patient's hips are elevated. When this muscle contracts strongly, not only is the vaginal opening in the diaphragm narrowed from behind forward, but the distance between the portio vaginalis and this opening is increased. Through the action of the levator ani the vagina is separated into an upper horizontal and a lower oblique portion ; the former sustains the cervix, so that the more horizontal and elongated it becomes, the firmer is the support furnished to the cervix. In other words the contraction of the levator not only narrows the vagina, but prevents the uterus from sinking downward. If the uterus becomes retroverted, the abdominal pressure will tend to force the cervix forward until it reaches the oblique descending portion of the vagina, when any considerable increase of the *vis a tergo* will cause the uterus to become procident. When on the other hand the organ is anteverted, the abdominal pressure will simply crowd the cervix downward more firmly upon the barrier formed by the contracted levator ; hence the importance of keeping the uterus anteverted while practising the opposed movements, the latter tend directly to restore the tone of the relaxed levator in cases of long standing procidentia.

Another writer in the same Journal recommends the following method of diagnosing and treating peritoneal adhesions of the displaced uterus. It may be performed at the office without an anasthetic. The anterior lip of the cervix is seized with a volsella and is drawn downward and forward, being held in position by an assistant. The examiner can then map out the entire posterior

surface of the uterus as high as the fundus can detect any adhesion, and can tear it if it is not too strong. The uterus may then be lifted on the finger while the external hand is inserted behind the fundus, so as to draw it forward. If the organ cannot be replaced in this manner, the portio vaginalis is drawn backward and downward, and is held in this position, while the operator pushes the fundus upward with his left index finger, assisted by manipulation through the abdominal wall. It is sometimes possible to hook the tip of the fore finger over the cicatricial bands, and to draw them downward and forward so as to stretch or tear them. If this fails, the cervix is again pulled down, and the index finger is pressed against the right corner of the uterus, while the external hand pushes the fundus over to the left as far as possible reversing the manœuvre if necessary.

The following is a brief report of the cases successfully treated by the writer.

Case I. The patient, æt. twenty-three, suffered from dysmenorrhœa, vesical irritation, and dyspareunia. The uterus was retroverted; a broad band could be felt extending from the upper part of the posterior aspect of the organ to the sacrum.

After preliminary treatment with "absorbifacients," attempts were made twice weekly to replace the organ, with ultimate success, the symptoms above mentioned disappearing entirely.

Case II. A woman, æt. thirty, who had had two children by her first husband, married again, and remained sterile after four years. Her uterus was retroverted and attached by thick bands to the left sacro iliac synchondrosis. After preparatory treatment, the adhesions were torn in two attempts, and the uterus was restored to its normal position, the patient eventually became pregnant.

Case III. The patient, twenty-four years of age, had suffered with pains in the rectum and abdomen of six years standing. The uterus was adherent in a position of left retrolateral flexion. It was restored to its normal position after two applications of the treatment above described. The patient was entirely relieved, and became pregnant.

Case IV. The patient, æt. twenty-three, was married at twenty-one and had borne one child; she had septic trouble after confinement, and on convalescing developed pains in the back and abdomen, menorrhagia, and hysterical attacks before he menstrual periods, which recurred at irregular intervals. The uterus was enlarged, retroflexed, and adherent to the right border of the pelvic brim. After repeated efforts, the adhesions were separated and the organ was brought to the median line. Hemorrhage followed the operation, but this ceased spontaneously. In the course of two weeks the uterus was in its normal position, so that a Hodge pessary could be inserted. In two weeks more the symptoms disappeared, and the pessary was eventually removed. The patient remained under observation for a year, and there was no recurrence.

In several instances adhesions were broken up at the writer's office without preparatory treatment. Ordinarily two attempts were make weekly, but if much pain resulted, only once a week. If the bands are very thick, one must be content with simply stretching them a little each time, instead of endeavouring at once to tear them. If the entire posterior surface of the uterus is adherent, or the organ is buried in a mass of adhesions, he does not try to detach it.

Progress of Science.

THE TREATMENT OF CARBUNCLE WITH CARBOLIZED SPRAY.

By Professor Verneuil, Paris.

For nearly forty years, during which time I have been practicing surgery, I have seen a great variety of methods employed in the treatment of carbuncle, and have observed that these methods tend to become less surgical or operative, but are no less efficacious on that account. At the beginning of my practice, like others, I treated this affection with very deep and long incisions. But I soon observed that this cruel practice was not at all necessary, that it was even dangerous sometimes, and that in the majority of cases recovery was just as rapid without this proceeding. I then recommended, some time ago at the Societie de Chirurgie, to use the knife only in cases where the pain was violent, and when the disease showed a tendency to spread rapidly, leaving to themselves those which were not very painful, or in which the affection was circumscribed.

As soon as Paquelin's thermo-cautery was introduced into practice, I substituted its use for that of knives, which often aggravates the disease by leading to septicæmia, hemorrhages, etc. I made deep and multiple openings, disposed in rings over the affected parts, plunging the cautery into the healthy parts all round. The dressing was an antiseptic, carbolized one. The objection to this method was the time required. When the lesion was extensive, as many as one hundred and fifty cauterizations were sometimes necessary, and they

took at least twenty or thirty minutes to carry out —the patient being, of course, obliged to be put under the influence of chloroform.

In 1881 I had established the following rule: "Exceptional intervention only in grave and well-marked cases; but applied with energy." I varied my *modus operandi*, however, according to circumstances; and instead of using both the cautery knife and the cautery point, I used only the latter.

Such was my practice when, in 1883, I saw a very grave case of carbuncle situated at the posterior region of the neck, in a man of strong constitution, who was suffering from well-pronounced diabetes. The carbuncle was opened at its center, and was progressing rapidly, notwithstanding numerous incisions had been made with the cautery, and the wound had a very bad color. On my first visit I decided that additional openings would be required, and that I would make them the next day. In the meanwhile I ordered the wound to be twiced sprayed for one hour with two per cent. solution of carbolic acid. On the next day the wound had no odor, and considerable diminution of the redness and swelling had taken taken place. I then resolved to try this method further.

Since then I have used the sprays exclusively against *all* carbuncles-small, medium or large; diabetic or not; painful or painless; still closed, or opened naturally, or by artificial means. This very simple mode of treatment I found superior to all others, in stopping the sufferings soon and in rapidly limiting the extension of the disease.

Amongst the cases I have treated, I may cite that of a young professor of the Paris Faculty of Medicine, who died lately of diabetes complicated with albuminuria. He had a very large furuncle or boil, on his left cheek, with diffuse and deep extension and considerable surrounding œdema. The prognosis was grave, not only on account of the seat of the trouble, but also on account of the presence of sugar, 3.5 per cent. Cardiac and pulmonary lesions rendered the administration of chloroform dangerous. I resorted to the carbolized spray. After the first application the œdema disappeared, the pain diminished and disappeared entirely in forty-eight hours; and after seven or eight days, in six of which the spray was used four times, the large furuncle was reduced to a medium-sized ecthyma pustule; and it was entirely healed by the seventeenth day.

Of course this treatment will not prevent accidents, which may occur when the carbuncle has given rise to an extensive sphacelus in extremely cachetic patients. But in the majority of cases, if taken early, we have in the spray an abortive treatment for carbuncle.

The manner of using the carbolized spray is known to every surgeon. A convenient apparatus is the atomizer, which is hea ed by alcohol, and which will work for twenty-five minutes. Such a one is sufficient for small or medium-sized carbuncles, and for those which are already opened. For the large tumors, where the skin is not broken, it is better to use a more powerful apparatus, which gives off a more abundant vapor and has a more considerable force of penetration. The apparatus is placed from one to two feet from the skin, regulating the spray according to the sensation of the patient. I generally place nothing between the carbolized vapor and the wound, or I place there only a single thickness of transparent gauze. Up to this date I have used only the two per cent. solution of carbolic acid. I have not tried other antiseptic solutions, being contented with the results obtained with carbolic acid, which, in my experience, has never irritated the skin nor produced any symptoms of general disturbance. The number of applications of the spray is variable. Usually three or four sittings of half an hour each, every day, are quite sufficient. Between the times of spraying, an antiseptic, carbolic dressing should be applied to the lesion. The patient might find so much relief from the spraying that the sittings could be made much more numerous—six or eight a day. The following precautions must be taken:

1. Carefully protect the normal parts surrounding the carbuncle with compresses, rolled napkins perforated cushions, or pieces of adhesive plaster perforated at the centre, according to the region which is occupied by the lesion; at the same time protecting the patient's linen and bed-clothes from becoming wet.

2. Place tne patient in an easy position, so that he shall not be tired by the spraying. When the boil or carbuncle is at the back of the neck, or on the back, the patient should be seated on a chair, so that he can rest his folded arms on the back of the chair. When the disease is situated in the perineum, or near the anus, the lithotomy position is the best; and when it is in the lateral, lumbar or gluteal regions, the patient should lie on the side with the lower limbs flexed.

The treatment by the carbolized spray is not only very simple, but also adapted to all forms or phases of the disease, being the same from the first to the last. When used at the beginning for a small carbuncle or boil, it has a good chance of aborting it entirely. Later, when the swelling is voluminous or has a tendency to increase, it will stop its progress. Later still, when mortification and perforations of the skin have begun, it limits the sphacelus, helps to the separation of the mortified tissues, disinfects the wound, keeps it clean, and by so doing reduces the temperature and symptoms of general disturbance. Its advantages are increased by the fact that its application does not demand the use of chloroform, and that there is no need to touch the tumor, or irritate it in any way. I have said, and I repeat, that the old method of incision with the lancet was far from being innocent, that these incisions produced in enfeebled patients severe hemorrhages, which were difficult to arrest, and which necessitated the use of painful hemostatics; and that they were capable of developing septicæmia, of propagating gangrene, and of favoring the absorption of putrid matter.

Many surgeons, after having opened a carbuncle, freely scrape, excise or press the spongy mass to evacuate the pus and gangrenous materials. But these proceedings are at the same time dangerous and painful, and should be absolutely avoided; for the use of carbolized spray renders them unnecessary, by disinfecting the wound.

In order to appreciate the danger of using force on a carbuncle or furuncle, one must remember that the infection is of an infectious character, and that the tumor contains pathological microbes capable of extending on the surface, or of colonizing in the interior, by auto-inoculation, or by entering the general circulation.

This last fact is not as well known as it might be, although it is known that a carbuncle, and even a boil, is capable of giving rise to fever, general symptoms, and even visceral manifestations—albuminous nephritis and deep abscesses, for example.

In conclusion, I would state the following views:

1. Furuncle and carbuncle are only different stages of one infectious disease, and are to be treated by the same therapeutical means.

2. The treatment consists in surgical interference or medical applications. The first was formerly thought to be indispensable, or at least was resorted to in a majority of cases. The second were thought to be efficacious only in mild cases, and were employed as secondary measures of relief.

3. To-day surgical intervention is becoming less and less necessary, and should be reserved for exceptional cases; on the other hand, antiseptic solutions of carbolic acid, of boric acid, etc., used in a peculiar way, and especially under the form of prolonged and repeated atomization, are remarkably efficacious, while they are at the same time very simple and free from danger.

4. Sprayings, with very few exceptions, lead to a rapid recovery from the manifestations of furuncle or of a small carbuncle, and they check the disease in graver cases. They very rapidly put an end to the pain, the fever and the general symptoms; they disinfect the purulent and gangrenous spots, and assist the cleansing of the lesion and the formation of granulation tissue.

5. Sprayings may be used in any region of the body for all forms, and in all stages of the disease. They are never dangerous, and will alone bring on a cure in the majority of cases. They would also help greatly to the success of surgical interference, if such should be deemed necessary.

6. Finally, they prevent auto-inoculations and the phenomena of general infection.—*Med. and Surg. Reporter.*

REMARKS ON ROETHELN.

By Henry Davis, L. K. Q. C. P., L. R. C. S. I., Tuam, Ireland.

Roetheln frequently resembles ordinary measles; occasionally it still more closely resembles scarlet fever; yet roetheln is not a hybrid. Measles alone or scarlet fever alone, or both diseases in the same subject, will not protect against it; and, on the other hand, roetheln confers no immunity, neither against measles nor against scarlet fever, nor, I am persuaded, in the least degree against a recurrence of itself. During the continuance of a lingering epidemic, I have seen every member of a large family, nine months' of perfect health intervening, twice attacked by roetheln. From what I have observed of this affection, it would surprise me little to see it seriously put forward that an attack of roetheln rather increases than diminishes the liability to recurrence and to the invasion of other diseases. I had once the opportunity of observing roetheln in a parturient woman; it was but a single instance and insufficient as an argument, still it is worthy of note that the complication in no way interfered with the normal course of labour, nor did it give rise to any unpleasantness afterward, such as would be expected to follow an attack of measles or scarlet fever.

Some years ago, in Manchester, I saw a good deal of an epidemic of roetheln. The invasion was suggestive of measles, accompanied by sneezing, lachrymation, photophobia, fever, general malaise, a slight sore throat, and cough. About the end of the second day, the eruption appeared without amelioration of the other symptons; on the contrary, the throat was much complained of, the temperature rose often to 105°, and prostration was pronounced. The character of the eruption was not usually the same on the face and over the body. On the face, especially the prominence of the cheek, it appeared as a number of dusky, circular or oval, slightly elevated blotches grouped without regularity. Over the body and limbs it was fairly uniform, much the color of scarlatina efflorescence, with, upon close inspection, many minute elevations. The palate, fauces and tonsils were of a deep red, also presenting minute elevations; the tonsils were swollen. About the fourth day of the disease, with quickened breathing increased cough and restlessness, with accelerated pulse and burning skin, it was usual to find at one or both sides of the spine a distinct area of broncho-pneumonia. I believe it was this complication which gave to the epidemic its very serious nature. The deaths which occurred during the continuance of the primary affection were, in my experience, all to be referred to broncho-pneumonia The eruption faded in about five days, and was followed by coarse, branny desquamation and shedding of the hair. Convalescence was slow. Dangerous sequelæ were very apt to ensue.

As a very curious coincidence, if not something more, I remarked that many of those who recovered from roetheln immediately contracted a set of symptoms exactly resembling the paroxysms of whooping cough.

This epidemic left upon my mind the impression that roetheln was a very serious malady—more serious than either measles or scarlet fever

as they are usually seen. How different the epidemic which I have now briefly to describe.

About twenty cases of sore throat, collected from the same locality, were brought under my notice. They were all very similar in appearance. They came one after another. They were communicated from one to another. Age seems to make no difference whatever in the liability. Sickness was hardly complained of, only considerable pain and difficulty of swallowing. On the throat alone was there any rash; the palate, fauces, tonsils and the root of the tongue were closely studded with minute, bright-red elevations; the tonsils were swollen.

I diagnosed epidemic herpetic sore throat, and I heard of epidemic tonsillitis in the practice of others. I watched my cases closely. The throat symptoms soon subsided. There was no suppuration. In a few instances, there remained for a long time enlargement of several small glands of the neck. In one case, the skin peeled from the index and middle fingers of both hands. Distinctly traceable to these there soon began to flow in upon me a straggling list of patients, all with sore throats showing the characteristic elevated points; some with yellow patches on the tonsils. Many of these latter complained of rheumatism, both fugitive and stationary, and in not a few swollen joints were exhibited. In several there was a distinct rash, which generally occurred as patches of a rose-red miliary eruption, especially on the forearms or beneath the knees. These patches might appear in the morning and be gone before the end of the day, or they might remain, undergoing little change, for several days; occasionally they faded and came out again; they seldom appeared upon the face.

In cases of this type, desquamation of the cuticle was not uncertain. It did not seem at all to depend upon the eruption. It occurred just as frequently when there was none, and the presence of an eruption was no indication that desquamation would follow. Again, the fingers alone might peel in the case where the rash had appeared only only on the legs. Desquamation from the body was usually in light scales; from the hands, in entire pieces. The disease was roetheln. One of my sore-throat patients brought me to his house, where every stage of roetheln was fully developed. Subsequently I saw enough of the epidemic to enable me with confidence to enumerate the following distinctive appearances which the disease might assume:

1. Slight sore throats, without malaise, eruption, desquamation or sequele.

2. Severe sore throat, with moderate fever, rheumatic pains, sometimes desquamation of the hands and fingers, a liability to chronic glandular enlargement (frequently sub-occipital), but no eruption.

3. Symptoms similar to the last, with patches of rose-colored miliary eruption, generally on the limbs, sometimes extending over the trunk and face, uncertain in duration; sometimes decidedly itchy and often followed by branny desquamation.

4. Considerable fever, some coryza, cough, aggravated sore throat, a general eruption scarcely to be distinguished from that of scarlatina (the tongue in many cases also becoming scarlet), often outlasting both the sore throat and malaise; desquamation, branny on the body, in whole pieces from the hands; health impaired for some time after the attack.

5. Lastly, the attack may be ushered in by severe rigors and vomiting, or even by convulsions and protracted unconsciousness. The temperature may range above 106°. The eruption may assume the appearance of purple blotches on the face and over the body. There may be a foul tongue, with red papillæ projecting; acute sore throat, with regurgitation of liquids through the nose; a distressing cough; great prostration; desquamation, both branny and in pieces; a tendency to dropsy and to chest complications.

According to my experience of this epidemic, roetheln may be followed by delicacy of the throat and chronic enlargement of the tonsils; delicacy of the eyes, chronic enlargement of many small sub-occipital and cervical glands, two or more of which may unite to form a considerable swelling; moist eruptions over the face and ears: protracted suppression of the catamenia. In one case, there was a distinct relapse, with appearance of the eruption after fourteen days. In another, the attack was followed by erythyma nodosum, which, however, may have been an affection independent of the roetheln, or possibly brought on by menstrual derangement, the consequence of roetheln. In two cases, I thought I detected the characteristic eruption on the throat. I then lost sight of my patients. Subsequently I learned that they both had had rheumatic fever, and that the skin had peeled from their hands during the course of the fever.

I will conclude this sketch with a brief notice of four cases of undoubted roetheln in two adjoining rooms. The first in sequence was a little boy who lay perfectly unconscious, passing from one attack of convulsions into another; temperature, 106°; a foul tongue; an eruption of livid, slightly elevated blotches, and a running pulse. Beside him, his sister presented almost the type of scarlet, uniform rash; scarlet tongue; swelling of the neck, and burning skin. In the next room the parents were lying almost as sick as the children, complaining bitterly of their throats; the mother, without a particle of eruption, and without any desquamation following; the father, with patches of the rose-colored rash on his arms, his chest and his legs, and subsequently, the skin peeled in large pieces from his hands.

Now, supposing that these four cases had occurred independently of one another, and unconnected with an epidemic, would they have been recognized as examples of the same disease?—*Brit. Med. Jour.*

ACNE.

Acne, or acne vulgaris, as it is sometimes called, is one of the most common of the diseases of the skin. It constitutes quite a respectable percentage of the grand total, but relief is not sought as often as its frequency would seem to indicate. It consists essentially in an inflammatory condition of the sebaceous glands, and manifests itself in the form of papules, pustules and tubercles distributed for the most part about the face, neck, back and shoulders. The most common forms are the papular and pustular, so named from the predominance of the lesions existing at the time. The forehead is perhaps the portion of the face most frequently attacked, other portions being also implicated, however, quite frequently. There are no subjective symptoms connected with this disease, unless it be a slight pain upon pressure when the disease is in its acute form. The trouble, generally, begins as a papule, varying in size from a pinhead to a split pea, and this may remain as such or become a pustule through the inflammatory action which is present. Should it remain a papule it undergoes more or less resolution, or may enlarge and become a little more indurated, and infiltrate a portion of the underlying tissues and thus become a tubercle. When a pustule forms it develops to its acme, the pus is discharged, a small crust forms, and it heals spontaneously. Successive crops are continually making their appearance, so that it may happen that the patient is never entirely free of the disease for years.

Acne occurs in both sexes about equally, and, as a rule, first makes its appearance at puberty. At this time the whole cutaneous system undergoes a greater or less disturbance, the hair in various portions of the body begins to grow, and the sebaceous glands are prepared for a greater functional activity than they have hitherto possessed.

The causes of acne are varied and numerous. Among those which hold a first place, however, may be mentioned disturbances of the gastro-intestinal tract. Constipation especially is a very fruitful cause of this disease, as also dyspepsia and allied disorders. These are conditions very often found more especially in young women.

Besides this we have uterine disorders, such as dysmenorrhœa, amenorrhœa and genito-urinary disturbances. Renal troubles act as exciting causes of acne, at times. There seems also to be a certain tendency to the disease, in certain families, so that it would almost seem as if some hereditability was attached to it. In addition to the internal causes, a few of the principal ones having only been mentioned, we have external agencies producing the so-called *acne artificialis.* Tar and similar agents are the active agents in its production, whilst the internal use of certain remedies, notably iodide of potassium, produces an artificial acne generally classified under the medinical eruptions.

The diagnosis of acne is not very difficult It must be distinguished from ezcema, syphilis and small-pox. From the first mentioned disease it is easily distingushed by the absence of itching, and from the fact that eczema of the face is rarely papular or pustular in character. The history, moreover, would serve to distinguish the two very easily. The papular and pustutar syphilodermata must be examined a little more closely, especially the acne-form syphiloderm which sometimes occurs upon the forehead as the *corona Veneris.* The history, the presence of other lesions, the tendency of syphilitic lesions to group, and the length of time the lesions exist, if carefully considered, will make the diagnosis clear. As to variola, the history would be sufficient. The chronic nature of acne, the comparatively short period of time between successive crops, the locality attacked, the age of the patient, the inflammatory nature of the lesions, the absence of subjective symptoms, and the anatomical seat of the disease (the sebaceous glands) should never be forgotton.

It is an uncommon thing to see acne in a child before puberty or in a person beyond the forty-fifth year.

The treatment of this disease should be constitutional and local. The general measures employed should be such as will tend to bring the patient to as normal a condition as is possible by therapeutic means. The condition which is most common and most constantly demands attention is the constipation which exists. To overcome this, the diet, in the first place, should be so regulated as to insure the greatest amount of nutrition with the least amount of labor on the part of the stomach, and arranged so as to preclude the condition of constipation or a tendency thereto. To make the bowels more regular, fluid extract of cascara sagrada, or the aperient mineral waters, are useful. An occasional dose of calomel will be of benefit. The following aperient mixture given by Duhring gives excellent results :

R Magnesiæ Sulphatis..... ℥ jss
Ferri Sulphatis.....gr. xvj
Acidi Sulphurici dil.....℥ ij
Aquæ..... ℥ viij

M.
Sig. Tablespoonful in a tumbler of water.

This should be taken about twenty minutes before breakfast or, if necessary, before supper also.

Besides the general remedies indicated in the case we have some which do good occasionally. Sulphide of calcium, in quarter grain doses four times a day, is sometimes indicated in suppurative form. Arsenic is useful in the indurated forms or where the papules are imperfectly developed, and may be given in two or three drop doses of Fowler's solution in wine of iron, or in one drop doses of a one per cent. alcoholic solution of bromide of arsenic, thrice daily after meals.

The local treatment is to be either soothing or stimulating, according to the indications which are present. In the greater number of cases the latter plan must be adopted. Soothing applications and lotions and bland ointments should be employed where there is a high grade of inflammation. The methods of stimulating are numerous. Sapo viridis pure or diluted may be applied at night, following this with a bland ointment. The pustules should be opened and their contents squeezed out. Hot water cloths applied at night, and followed in the morning with cold douches and frictions are valuable. Sulphur is a very good remedy to apply, and may be prescribed in ointments or lotions, in strength, varying from twenty grains to two drachms to the ounce.

The following lotion recommended by Bulkley is good :

R Sulphuris Loti..... ℥ j
Ætheris .... ℥ vj
Alcoholis ..... ℥ iijss
M

Sig. Apply as a lotion.

Sulphuret of potassium may be used as also Vleminckx's lotion. Where more active stimulation is required biniodide of mercury or corrosive sublimate or protoiodide of mercury or ammoniated mercury can be used.

The surgical treatment is often of greater value, more especially in the indurated and tubercular forms, and care should be taken to cut well into these lesions, passing through the centre, and applying warm cloths so as to induce free hemorrhage. In conjunction with this, the sulphur and mercury ointment mentioned in the "Talk" on Comedo will prove serviceable.

One point which should not be forgotton is to examine male patients for urethral stricture. If such exists bougies should be introduced, or other means employed to enlarge the calibre of the urethra at the part of constriction. In a number of cases the beneficial effects of this treatment will be observed in an amelioration of the skin trouble.

The prognosis of acne depends, in a great degree, upon the cause producing it. It has a tendency to be chronic, and is generally stubborn to all treatment to a greater or less degree. There is a tendency to spontaneous recovery at about the twenty-sixth year, but if the cause of the disease be corrected and appropriate local treatment instituted, success will be pretty fair.

MIGRAINE IN CHILDREN.

At a recent meeting of the Philadelphia County Medical Society, Dr. Wharton Sinkler read a paper on Migraine in Childhood. He said "Migraine is more common in children than is generally realized. Popularly the attacks of 'sick-headache,' which many children have, are attributed to disorder of the stomach from some indiscretion in diet, and many physicians hold the same view. The fact that migraine is a disease especially likely to begin about the time of puberty has long been recognized, and this point has been insisted upon by Anstie. Many children begin to suffer from characteristic attacks as early as 7 or 8 years of age (Eulenberg speaks of a girl who suffered from excessively severe attacks from her fourth year), and continue to have them until adult life is reached; or, indeed, the attacks may continue all through life. Still, it is most often the case that when migraine begins in early childhood, it becomes more severe at puberty, and ceases by the time full development is attained.

The influence of hereditation is often seen to a marked degree in migraine, and the affection often seems to be directly handed down from one generation to the next. It is transmitted from parent to child, and may follow either the male or female line, descending from father to son, or from mother to daughter. The children who suffer from migraine often belong to neurotic families, and it is common to find among the near relatives instances of other nervous disorders. It is, then, important for us to be on the lookout for migraine in children who belong to families of nervous tendencies. I have now under my care for sick-headache a lad of 14 years, whose mother has violent attacks of neuralgia, and one of his sisters is a well marked example of hysteria. It is a well recognized fact that children who suffer from this disease at and before the time of puberty may, in later life, become the subjects of some of the grave neuroses, such as epilepsy or insanity. The great value of early recognition and cure of the disease is, therefore, apparent.

In addition to the influence of heredity, there are many other causes which may induce migraine in children. The manner in which a child is brought up has much to do with the production of these attacks. Improper food, bad atmosphere, and, above all, an insufficient amount of sleep with overtaxing of the brain, all tend to predispoes to or directly bring on migraine. When a child first begins school he often complains of more or less headache. The close air of the school-room, and too little exercise are enough to account for some of these headaches.

In other children, mere mental effort brings on attacks of pain in the head. The same thing holds good of migraine that I have observed in chorea, namely, that it is the studious, ambitious children, who stand at or near the head of their classes, who suffer from both of these affections. In many instances there are ocular defects, which cause eyestrain, and in these cases the attacks of migraine continue to become more and more frequent, in proportion as the eyes are used, until the eye-defect is corrected by glasses. It is not in all cases, however, that the headaches which follow excessive use of the eyes are due to ocular defect. Migraine from eye-strain is not uncommon in children. Dr. de Schweinitz has kindly furnished

me with a case, which is also of interest on account of the superficial optic neuritis which exists.

Migraine does not appear to affect one sex more than the other, but if any difference does exist the preponderance is in boys. Precocious sexual development in either sex often leads to this form of headache. It is astonishing at what an early age evidences of sexual irritation may appear. Bad associations and influences lead a child into thoughts and practices that are unwholesome in the extreme, and bring about disorders of the whole nervous system. Even before puberty the nervous system undergoes a preparatory change, and if there be evil conditions in the surroundings of the child to excite sexual irritation, puberty is hurried forward. Under these influences a child becomes hypochondriacal and mopy, complains of various ailments—some of which are real and some fancied—and may suffer from real neuralgias. It is very seldom that we meet with migraine in robust and hearty children; but it is seen in those who do not get enough fresh air, and who are thin and pale; or in children who think and read too much, and who do not romp and play, but prefer to sit with older people and drink in conversation far beyond their years.

The symptoms of migraine in young children are not far different from those in adults. The attacks are markedly paroxysmal, occurring from two to six weeks apart, and become more or less frequent, according as the conditions for their development are favorable or otherwise. There may be only one or two attacks a year. The attacks may be preceded by premonitory symptoms, such as chilliness and a form of lassitude, and the child is dull and indisposed to play, Sometimes there are subjective ocular symptoms in the form of specks floating before the eyes, muscæ volitantes, or balls of fire, and bright zigzags. Occasionally the child complains of hemiopia. These symptoms last a half hour or more and may be followed by subjective numbness of the tongue, lips or of the entire half of the body. Putnam had a patient in whom in boyhood migraine was represented by repeated attacks of numbness and tingling of the right side of the face and right half of the body, with aphasia, and hemianopsia, followed by but trifling headache, or none at all. Later in life there were severe attacks of pain. Usually as soon as the subjective auras disappear the pain begins. At first the pain is dull, and it may be confined to one side of the head; generally, in children the pain is on both sides of the head, at least they complain of the pain as being general, and it may be either frontal or occipital; most frequently it is frontal. Anstie says this is common of all neuralgias of children —*i. e.*, to be frontal, and to affect both sides simultaneously. There is often nausea throughout the attack, or it may terminate in vomiting, or a free flow of urine, or sometimes there are two or three diarrheic stools. After the crisis is reached the child may fall asleep, and after a nap waken well. The attack does not always terminate in a crisis; after a gradually increasing headache for several hours it gradually subsides. The face in the beginning of an attack may be pallid, and as the pain increases the face becomes deeply flushed, and the eyes suffused.

The treatment must be preventive and curative. If a child is of a neurotic family, in which there are already instances of neuralgia and migraine, we should urge the parents to see that he has as wholesome a life as possible. Insist on ten hours' sleep at night, and keep him from too prolonged application to his books. Six or seven hours of study in the twenty-four is enough for a growing child. Encourage out-door sports of all kinds, and, if possible, keep such a child in the country for many months in the year. The diet should be abundant and nutritious, milk, eggs, soups and broths, with meat in moderation, and the various cereals, and plenty of vegetables and fruit. Such children can eat largely, and plenty of fatty articles of food is well borne and is of great advantage. There is a great tendency, in the education of both girls and boys, to over-cramming, and to over-stimulation, to reach a high educational standard; but it is encouraging to see the effort which is now being made in our schools to vary and widen the course of study. The introduction of manual art into the public schools is of inestimable value to the children, not only because it gives them dexterity and skill in the use of the hands, which becomes of practical advantage later in life, but it trains the minds in studies which are, so to speak, external in their kind. As physicians, we cannot too strongly discourage the taking of young children to the theatres, where not only the late hours and bad air are injurious, but the impressions produced by the plays must be pernicious to an extreme. One cannot go to the theatre now without seeing children of all ages looking on at every variety of performance, from the most decolleté spectacular ballet to a melodrama of the highest intensity.

If a child has already begun to have attacks of migraine, nothing is of more value than attention to the general health. Such children are often pale and thin, and have but little appetite. If change of air can be secured, it is often enough to obtain relief from the attacks. If we cannot send the patient away, we must resort to tonics and good feeding. Cod liver oil, if it can be borne by the stomach, is of the greatest possible use in such cases. If the child cannot take oil, we must introduce fat into the system in some other way. Cream and plenty of butter may be given. Devonshire clotted cream, which is now to be obtained at the Alderney dairies, is relished very much by children.

Special anti-neuralgic drugs are seldom indicated in these cases, but sometimes the bromides may be given with great advantage, especially in those children who are of a very nervous temperament, and in whom any effort at brain-work causes

headache. It should be given in small doses, and continuously for some weeks.

In many cases some ocular defect will be found which will require correction by glasses, and many cases of migraine in children have been cured by this means alone. In all cases of migraine we should look carefully into the condition of the teeth and have any unsound ones filled or removed."—*Western Medical Review, St. Louis, Mo.*

THE TREATMENT OF BRONCHITIS.

By J. Milner Fothergill, M.D.,

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Bronchitis in its varying degrees of gravity is a very common malady in general practice. In its acute form it is rarely serious with healthy adults; but when the powers are already enfeebled, and at the extremes of life, it is a malady which frequently proves fatal.

It has two distinct stages. (1) the first of dry, swollen mucous membrane, and (2) free secretion. The treatment of the first stage is widely different from that of the second stage. In the first stage our aim is to procure free secretion; in the second stage our chief object is to have the secretion coughed up. We want to follow Nature's processes and to hasten them, if possible, but not to traverse them. No ordinary malady requires this more certainly than bronchitis. In the first stage, the dry swollen, irritable bronchial lining membrane provokes a great deal of useless cough. The skin, too, is dry, though the temperature as a rule does not run high. There is often a good deal of pain down the sternum, and the patient complains of the chest "feeling raw." Say the patient is an adult, it will be well to give some Plummer's pills at bed time, with a grain of opium; and if the tongue be coated a Seiditz powder, or a black draught next morning. A good mixtue will be found in.

℞ Vin. Antimon. Mx.
Liq amm. acet. ℥ j.—ter in die.

Steam inhaled soothes the dry bronchial membrane, and the steam can be medicated with advantage. A jug of boiling water with some terebene, or terpentine, or tincture of iodine, or Friar's balsam poured on the top, will furnish an excellant inhalant. Sometimes the first stage is prolonged; and in one case seen long ago in general practice venesection only could relieve it. This occurred several times. Counter irritation over the front of the chest affords great relief; and nothing is better than croton oil liniment, provided proper precautions are taken to see that the liniment only touches the part it is intended for and nowhere else. Many and painful are the consequences of carelessness in this matter, so much so that it is rarely prudent to let a patient apply it to himself. If the skin can be acted upon by vapour, the natural course can be materially hastened.

Such then is the line of attack in the first stage. If a bronchitis kettle is at hand, set it agoing at once. If not, put a kettle full of water on the fire, without a lid, so that the steam can escape into the room. Where the patient is of the neurosal temperament, the congested mucous membrane often starts up a certain amount of true spasmodic asthma. The fuming remedies, so good in uncomplicated asthma, rarely agree here. They irritate the dry bronchial lining, and so do more harm than good. An emetic of a quarter of a grain of tarter emetic, with fifteen grains of ipecacuanha powder, taken about seven in the morning, will often produce a beneficial change, and start bronchial secretion.

In bronchitis the danger *par excellance* is exhaustion, and inability to cough up the phlegm which accumulates in the air tubes, and if not expelled suffocates the patient. Never let that fact escape the field of vision. A time of trial and endurance has to be undergone sooner or later, if the attack be at all severe. Consequently the patient must be fed; and especially is this the case with delicate children. Milk thoroughly well boiled (half an hour) is the food for either young or old. Then it may contain some Mellin's food, a table-spoonful to the pint of milk. Beef tea or mutton broth should be prepared with some broken biscuit, or, as of old, the sole of a loaf. This makes it a food which ordinary beef-tea is not. And if a little of the stringy muscular fibre, so constantly spoken of disrespectfully as "the remains of the beef," be pounded in a mortar and returned to the beef-tea, it will be all the better. The popular impression is that beef-tea is a nourishing food. This is a mistake, and a very murderous mistake it is. In the houses of the humble, treacle and milk may be boiled together, and is well taken by infants. Probably it is in the feeding of bronchitic persons, old and young, where the cases slip through the doctor's fingers. It is all very well to generate steam, give medicine, wrap the child up in cotton wool, or a linseed poultice; but it must be fed; its powers must be conserved for the time of trial; and it is well to remember that the remedial agents indicated in the first stage are of a depressant character.

When secretion has been secured, and the phlegm begins to come up readily, the aspect of the case changes. It is like a dissolving view with the magic lantern; one is seen passing into another. The skin becomes moist, like the bronchial lining membrane. Relaxant remedies, having served their turn, give place to stimulent expectorants. The carbonate of ammonia takes the place of the acetate. The sudorific is no longer needed; but the stimulant to the respiratory centre becomes essential. Carbonate of ammonia is a respiratory stimulant. So is strychina. These are the main constituents of a cough mixture in the second stage of bronchitis.

Senega is largely in use; but probably if medical men made a practice of tasting themselves what they prescribe for others, it would soon fall into disuse. If there be any strain on the right ventricle, and especially if there exist any old standing mitral mischief, digitalis must be added, as in the following draught which may be repeated every four hours.

℞ Am. carb. gr. iv.
Tinct. nuc. vom. Mx.
Sp. chloroform Mxx.
Inf. cinch. flav. ℥ j.

Such is an efficient combination when the bodily powers are being subjected to the strain of a severe attack of bronchitis. Then the liquid food must be accompanied by some alcohol. If the doctor be timid or the nurses negligent, death, with his scythe, will not be far distant. The medical man must stand up to the disease like a swordsman to his antagonist. If the trial be a severe one, he must rise to the occasion. Recently fifteen minims of tincture of nux vomica every four hours did me yeoman service, where the respiratory centre was getting distinctly drowsy. When the phlegm accumulates in the air tubes of the basis of the lungs, the breath becomes very short, as the breathing area of lung becomes reduced. In the case of children an emetic of ipecacuanha is indicated, and the act of vomiting gets rid of the accumulation in a very efficient way. The child looks as if it were going to die, as it fights for breath; but it does not die, and shortly falls into a calm sleep, breathing easily. The same may be done for a healthy adult; but is not safe with old persons with rotten tissues. All the time keep up the powers. Add some brandy to the milk and treacle, or milk and malt extract, but do not give it alone. The stimulent must carry with it some food, otherwise the powers are only worn out all the sooner. This is a very important matter, never to be forgotten. As the case drags on the patient becomes worn out from "lack of sleep," and begs for a narcotic. His prayer, however piteous, must fall on a deaf ear. To sleep is to die. The breathing can only be maintained by voluntary effort. Watch the patient dropping off to sleep, nodding, to awake with a start from a horrid dream. The carbonic acid gas accumulates in the imperfectly aerated blood, till the drowsy respiratory centre wakens up with a start, and throws the accessory muscles of respiration into violent action. The subjective sensations of the patient are those of suffocation, which takes the form of a horrible dream.

At last the battle is either won or lost. The amount of secretion decreases, in some portion of the lung at least, and the much-tried patient gets snatches of sleep. On awakening a "coughing bout" clears the air tubes, so that soon the patient drops off to sleep again. As soon as the fit of coughing is over, give the food, and, if the hour, the medicine also. Loose no time; it is precious. By such management the strength will be rapidly regained. And finally there is one thing which the senior student, or young practitioner, must *not* do. Very likely there is some congestion of the lung bases at the back. If the patient be found sitting up it may be well to take the opportunity to go over the back; but this must be done rapidly. To get the patient up and expose the back for the purpose of careful examination is a foolish proceeding fraught with great danger. The physician can count the respirations; the man who daily examines the backs of the lungs in a severe case of bronchitis—where the skin is bedewed with sweat, *i.e.*, the cutaneous respiration is helping out the embarrassed pulmonary respiration—is not fit to be a physician, and will be much less murderous if engaged as a dissecting-room porter. At critical times every action must be carefully thought out; when life is trembling in the balance a trifle may cast it, and regret is unavailing. Some things must be done and some must not be done. Even if the bowels are not moved for several days, do not administer a purgative. Exposure in getting up to the night-chair often entails most serious consequences. There are sins of commission as well as sins of omission, and a thoughtless practitioner is apt to commit both.—*Hospital Gazette.*

BREATHING EXERCISES IN THE PREVENTION AND TREATMENT OF LUNG DISEASES.*

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*A paper read before the Los Angles County Medical Society 6th April, 1888.

I desire this evening to bring before the Society some considerations as to the value of systematic breathing exercises in the treatment and in the prevention of diseases of the respiratory tract.

There is no question that regular general exercise is of prime importance in maintaining the bodily organs and their functions in a state of health. This is one point upon which all physicians agree. Not only does exercise tend largely to the maintenance of health and general well-being, but it leads to that bodily vigor which resists disease. In other words, through properly regulated exercise, a reserve force is accumulated which may be drawn upon when needed.

This energy may be directed toward the development of special functions or organs, and one part or system of the body becomes conspicuously stronger or more active than the rest. It is continued exercise that produces the blacksmith's muscle, the touch of the blind, the dexterity of the juggler, the endurance of the athlete. Strong muscle, a sensitive touch, dexterity and endurance are all admiral elements, particularly in a sound

body. But it is far too often the case, that the very foundation of strength and endurance and vigor is neglected; and the lungs, which of all organs rank first in importance, whether we consider the functions of health or the danger of disease, are too apt to remain undeveloped; their fullest functional service is not carefully sought after.

There is no question that if the care that is given toward developing the muscular and nervous systems were devoted to strengthening the breathing apparatus and increasing lung capacity, an infinitely greater benefit would be obtained by the individual; a greater factor in preserving health and withstanding disease. This is especially the case with persons whose lungs are below par through weakness, either inherited or acquired.

In this connection there are three propositions, which hardly need demonstration:

1. In the ordinary individual the lungs are not fully developed; many of the air-cells have only to the slightest extent been brought into use. This fact is repeatedly illustrated in post mortem examinations of these organs.

2. Proper breathing and muscular exercises will bring these cells into use and enlarge the breathing capacity (*i. e.*, "*vital* capacity.") By way of proof, reference may be made to the effect of training in vocalists and athletes.

3. Individuals whose lungs are well developed are less liable to pulmonary diseases than are those whose lung capacity is less developed. In support of this proposition I may refer to the valuable paper of Dr. Balfour (*Med. Chirury. Trans.*, 1860, p. 263), in which he shows, from a large number of recruits for the English army, that among those whose lung capacity was below the average, there was over four times the sickness that prevailed among recruits whose capacity was above average. One of the highest authorities upon the science of life insurance (Sieveking, Med. Adviser in Life Ins., p. 42) says: "Respiration and life may be regarded as synonymous, and we find that vital power may be measured by the manner in which the functions of respiration are carried on. Hence the stress that medical men, and even popular opinion, lays upon the value of a well developed chest, which affords an indication of the *vital capacity* of the lungs. In ordinary quiet respiration, the thorax is neither fully expanded nor fully emptied of the contained air. To measure its entire capacity—*i. e.*, to determine the whole amount of air which it is capable of taking in and discharging in one respiratory act—it is necessary that a forced inspiration and a forced expiration be made."

The average vital capacity is 225-250 cubic inches for a man of ordinary height at thirty years of age. The capacity increases with the individual's height; and it also increases from the age of fifteen to thirty-five. In latter life, however, it is found to decrease.

The average of expansion for the "normal" man is three inches; that is, the difference in chest circumference between the most complete expiration and the fullest inspiration. If it falls much below this figure, life companies agree that the individual is an unsafe risk for insurance, because he is not likely to live out his "expectancy."

But systematic exercise will increase the expansion considerably. I have often examined patients and applicants for insurance whose expansion was over four inches, and in a few cases the expansion has reached five inches. In most if not all cases of unusually large expansion, the individuals were either vocalists or players on wind-instruments, or they had taken special pains to develop their vital capacity. Some years ago when I first made application for life insurance, my chest expansion was four inches; and this amount was (in a few weeks) increased to five inches by careful exercises, vocal and respiratory.

But the greatest benefits to be derived from lung exercises are not in the cases of healthy individuals, but rather in those whose vital capacity is below the normal—who are hollow-chested, stooping, and feeble in their breathing. The imperfect development of their respiratory function invites disease; their lungs are vulnerable. Proper exercise will throw off this debility and render them less liable to disease. We may go even a step further and say, that in many cases where lung disease actually exists, breathing exercise is one of the most valuable elements in treatment. I have often been gratified with the way in which a consolidated lung in chronic pneumonia of long standing and slow progress would improve under proper lung exercise. Indeed, in some of these cases it has seemed that properly regulated exercises have rendered greater service than could be derived from ordinary drugs.

The exercise which I have found of most value in developing the lungs may be described as follows:

Standing as erect as possible, with shoulders, thrown back and chest forward, the arms hanging close to the body; the head up, with lips firmy closed, inhalation is to be taken as slowly as may be; at the same time the extended arms are to be gradually raised, the back of the hands upward, until they closely approach each other above the head. The movement should be so regulated that the arms will be extended directly over the head at the moment the lungs are completely filled. This position should be maintained from five to thirty seconds, before the reverse process is begun. As the arms are gradually lowered, the breath is exhaled slowly, so the lungs shall be as nearly freed from breath as possible at the time the arms again reach the first position at the side. By these movements the greatest expansion possible is reached; for, upon inspiration, the weight of the shoulders and pectoral muscles is lifted, allowing the thorax to expand fully; while upon exhalation, in lowering the arms, we utilize the additional force of this pressure upon the upper thorax to render expiration as complete as possible.

These deep respirations should be repeated five or six times, and the exercise gone through with several times a day. It is hardly necessary to remark that the clothing must in no way interfere with the exercise.

In some cases this exercise is more advantageous when taken lying flat on the back, instead of standing. In this position the inspiratory muscles become rapidly strengthened by opposing the additional pressure exerted by the abdominal organs against the expanding lungs. And on the other hand, expiration is more perfect and full on account of the pressure of these organs. This is an exercise now advocated by several leading vocal teachers of Europe.

In conclusion, I will mention the exercises proposed by Dr. Dally (Bul. Gun. de Thérap., Sept. 20, 1881), for enlarging lung capacity:

"1. The first or normal is the vertical position perfectly erect, as if standing against a wall, the arms hanging by the side. This position should be taken and kept ten minutes at a time, a number of times a day.

"2. The two arms and the hands are extended horizontally forward, the palms facing. The hands are separated slowly, whilst the chest is inclined forward. Remain in this position thirty seconds, and inspire deeply by the nose. Return to the initial position and expire. Execute this movement six times.

"3. The arms hang by the side; raise them upward—the fingers well extended—above the head, the palms looking forward. Take a deep inspiration. Let fall the arms alongside the body, palms open and expire slowly.

"4. Double rotation at the side. The subject being in the normal position (first,) executes as large as possible, the arm well extended, double rotation laterally, and inclining the trunk forward each time that the arms are thrown behind, and never projecting the abdomen forward. This movement is executed entirely by the scalpo-humeral articulation.

"5 The arms are crossed horizontally, the palms looking backward. Flexion lateral, alternately, of the trunk. The flexion will then be regular, transverse, the abdomen drawn in, the legs extended apart, the pelvis fixed. The limit of the flexion is the vertical position of the elevated arm. Mild inspiration during the flexion, at its termination expiration. Execute these movements six or eight times.

"These exercises, if faithfully carried out improve the shape and capacity of the thorax and check the development of incipient phthisis.

"According to Dr. Dally, dyspnœ, polysarca, and arthritic conditions are removed or sensibly ameliorated. Venous states, varicose dilatations, and infarctions are, after some weeks of such movements, much improved, when the circumstances are favorable. The great obstacles to this hygienic medication in our civilization are the habitual laziness and idleness, and the indisposition to devote time and interest to such means." *Southern California Practitioner*

PLACENTA PREVIA.

Dr. Robert Barnes says that the conflicting ideas regarding the treatment of this dangerous condition justify him in pointing out the true theory which should govern our procedure. The methods advocated are as follows: *Accouchement forcé*, to which Spiegelberg lends his authority. "Rupture the membranes, draw down a foot and wai during extraction." Schroeder. Bimanual version, tamponing. It has been urged that rapid and forcible delivery, while dangerous to the child, is justifiable, as the condition is so perilous that the child need not be considered. Barnes believes that it is no longer permitted, without clear necessity, to sacrifice the child, and he has found that the methods which are most successful in saving the mother are those which give the child the best chance. He bases his theory of placenta previa on a division of the uterus into three regions: The fundal, which is the typical normal attachment of the placenta; the equatorial, which is the seat of lateral attachment, and predisposes to accidental hemorrhage; the lower uterine segment. This, which was first described by the author in 1847, is divided from the equatorial zone by what is variously known as Braun's os internum, Bandl's ring, and Schroeder's contractions-ring, at a point which generally corresponds to the equator of the fetal head and frequently to the pelvic brim. When the placenta invades this lower segment, danger begins, as the part so situated is liable to premature detachment. He believes that the anatomical differences between the middle and inferior zones, which have been described by some authors, are exaggerated. The source of the hemorrhage is the uterine vessels which are torn across by the detachment of the placenta from its walls. The cause of this rupture cannot always be muscular contraction, as it sometimes takes place before any contraction has occurred. From its frequent coincidence with a menstrual period, vascular tension must be considered as a factor. The spongy cellular structure of the placenta favors accumulation of blood; from this distension there may be rupture of vessels and hemorrhage within the structure of the organ. The bulk of the distended placenta becomes greater than its area of attachment, and separation takes place, and hemorrhage persists if contraction does not set in. This condition must also be considered a factor. The form of contraction which prevails in the inferior uterine segment is retraction, longitudinal muscular fibres continued from the middle zone, pull up or retract the lower zone, thus dilating the cervix and infacilitating expulsion. When the reaction is retarded there is hemorrhage. An obstacle to this retraction is

the partial adhesion of the placenta, which, when detached, if the vital power is not too low, admits of retraction. Alteration of the structure of the placenta, as fibrinous or fatty degeneration, especially apt to occur in the previal flap, predisposes to self detachment. The placenta may grow more rapidly than the seat of its attachment, and thus separation may take place. In the progress of many labors there is a stage when flooding is spontaneously arrested; this is due to contraction of the uterus and clot formation in the orifices of the vessels. The arrest of flooding is neither permanent nor secure until the whole of that portion of the placenta adhering to the lower zone is detached. The limit of dangerous attachment corresponds to the line before mentioned: below this the uterine segment must dilate to allow the passage of the child. Above it the uterus does not dilate. When the placenta is detached from this segment there is no physiological reason why further detachment or hemorrhage should take place until after the birth of the child. The portion which remains adherent is commonly sufficient to preserve the life of the child, and it is only in cases of central attachment or premature labor that its life is sacrificed. Adhesion over the os internum impedes the regular dilatation of the part. Injury and inflammation of the uterine structures, particularly of the cervix, are especially likely to ensue upon delivery in placenta previa. The greatest amount of hemorrhage frequently takes place at the commencement of labor, frequently before there is any clear indication of labor. The cervix is always, from its being near the seat of placental attachment, highly vascular, and is frequently very rigid; any attempt to force the hand through it, to detach the whole placenta or to deliver, must be made at the risk of injuring the womb. The dragging of the child through the cervix, even when it has not been necessary to introduce the hand into the uterus, is a proceeding of peril to both child and mother. It is desirable to expedite the stage of dilatation, avoiding violence. The arrest of flooding, and the expansion of the os may be promoted by rupturing the membranes and the use of tents. Since cross presentation or other unfavorable position of the child is apt to impede or destroy the regular contractions of the uterus which are necessary to arrest the flooding, it is mostly desirable to deliver as soon as the condition of the os will permit. In some cases rupture of the membranes and the employment of galvanism (?) may suffice to arrest the hemorrhage at the critical period when the total detachment of the placenta or forcible delivery is dangerous or impracticable, the introduction of the index finger through the os, and the forcible separation of the placenta from the dangerous zone, is a safe and practicable operation, and will convert the labor complicated by placenta previa into a normal labor. If the uterus does not assume the vigorous action necessary to effect delivery, it will be necessary to dilate the cervix artificially. This can be readily done by the caoutchouc water dilator ("Barnes' bag"). Sufficient dilatation being obtained delivery may, if necessary, be accelerated by forceps turning or embryotomy, according to the special indications dictated by the condition of the child. In case of turning, he insists strenuously upon the importance of the delivery of the after-coming head by the forceps, if there be any difficulty or delay in the passage of the head under manual traction. He sums up the measures that come into successive use as follows: (1) Rupture of the membranes. (2) Apply a firm binder over the uterus. (3) A plug may be used to gain time, but it must not be trusted— watch closely. (4) Separate all the placenta that adheres within the lower zone, and observe closely. If no hemorrhage, wait awhile. The uterus may do its own work; if not dilate the cervix by the water bags. Again pause and observe. If Nature fails to deliver, resort to the forceps, which gives the best chance to the child, or turn. "In following this order of procedure, we strictly follow the law of physiology. We do not force Nature but obey her."—*British Medical Journal*, March 31, 1888.

NOTES ON THE TREATMENT OF ACUTE TONSILLITIS IN CHILDREN.

By FRANK HAMILTN OPOTTER, M. D.,
Lecturer on Laryngology, Medical Department, Niagara University.

When an inflammation attacks the tonsil, it is influenced in its progress by those constitutional states that so markedly affect the natural history of disease. Hence, it is important to recognize the presence of syphilis, tuberculosis, rheumatism, etc., in the constitution of any patient we may be treating for a tonsillitis.

In children, these diseases may be latent, butr none the less, they have a potent influence ove, the course of the malady under consideration. Therefore, we should always make ourselves familiar with the natural history of the parents, and, if any of these diseases are found, so modify our treatment as to meet and counteract whatever of baleful influence may have been transmitted to the child.

In the suggestions to follow, on the management of an acute tonsillitis in children, it must be understood that no routine practice is proposed. The plan detailed must be so modified as to meet the hereditary and acquired variations from health in the particular case under consideration.

In order to obtain a clear idea of what is required in a rational treatment of a tonslilitis, let us see how an inflammation may behave when attacking that organ. In our opinion, there has been too much refinement in this matter. Bearing in mind its anatomical structure, we observe, in the first place, that an inflammation may limit itself entirely to the tissue immediately surrounding the

tonsil, and then we have the peritonsillitis of some authors; it may express itself in the superficial parts, and become the erythematous tonsillitis of others; it may be deep seated, involving the parenchyma, and we have the parenchymatous tonsillitis, or the true quinsy of the older writers; and again, the brunt of the inflammation may be confined to the lacunæ, and then the disease is called folliculous tonsillitis. Now, in our opinion, this is the same inflammation, modified according to the constitutional state of the patient, the kind and severity of the exposure, and so on. As an illustration, it has been observed that the variety of tonsillitis called parenchymatous, occurs with great frequency in rheumatic subjects, and treatment followed in recognition of this fact—as the exhibition of the salicylates, salol, etc.,—has resulted in prompt relief. Other instances could be cited in proof of this position, but it would carry us too far from the immediate purpose of this paper. The question before us is, how to treat a case of simple tonsillitis, by which is meant, one uncomplicated by any other disease, and uninfluenced by the presence of any diathesis. Such cases are not rare, and, in our opinion, can be greatly modified in their duration and severity by proper treatment.

We have to deal with a sthenic inflammation—one that develops very rapidly, and continues at a great height for some days. The plain indication, then, is to control the production of this heat, to so influence the nerve centers as to make a high temperature impossible. This is done by the exhibition af antipyretics. So much for the general treatment. The next indication is to relieve the local distress. When the mucous membrane of the mouth and throat is inflamed, the secretion therefrom is highly acid. This acid secretion acts, in time, as an irritant, and keeps up the local disturbance. The indication is to apply alkalies to the surface of the tonsil, to neutralize the acidity of the secretions, and relieve the inflamed surface of this great source of irritation.

This is the general plan proposed; the details of its application are as follows:

The doses given are for adults, for the reason that we then have a definite standard to go by, which can be modified to meet the age of each individual case.

First, to keep down the temperature:

The various antipyretics may be used according to personal choice, but we have come to rely principally upon antifebrin. This is to be given in five grain doses every hour until the temperature falls to nearly normal, and then at intervals necessary to prevent it rising again. We have never been obliged to give more than three doses in order to accomplish the first indication, generally two doses have been sufficient. In children, the minimum dose according to age should be given, and the patient carefully watched. Occasionally, it will be found to have a depressant effect, and must be abandoned for one of the other antipyretics.

The local treatment can be applied in several ways. Bicarbonate of sodium can be dusted upon the tonsils by means of an ordinary powder-blower, or a solution, ten grains to the ounce of water, can be sprayed on the parts by means of an atomizer, or, where the patient is of sufficient age, he can be instructed to dip the finger into the powder and touch the surface of the tonsil wish it, or he can hold the solution in the mouth, allowing it to bathe the parts for a few moments. This local treatment should be used frequently, say at intervals of an hour, during the day.

Our notes show that, with this plan of treatment, four cases of severe tonsillitis, seen within the last few months, were limited to two days each. On the third day, there remained simply the general malaise, which is apt to follow cases of this kind. The temperature of these cases, when first seen by the writer, ranges from 102° to 104° F.

Professional friends, to whom this treatment was suggested, have reported equally good results. It is not necessary to report these cases in detail, but we content ourselves by formulating the conclusions of this paper as follows:

I. When an inflammation attacks the tonsil, it is greatly influenced in its course by the presence of any diathesis.

II. The treatment must be so arranged as to meet and counteract the influence of this diathesis.

III. In all cases, simple as well as complicated, the general indications are to keep down the temperature and to relieve the local irritation.

IV. The first indication can be met by the exhibition of antifebrin in proper doses; the second by the frequent application of bicarbonate of sodium, either in powder or in solution, to the surface of the tonsil.

V. This plan, properly followed, will generally limit the disease from one to three days.

HYPODERMIC USE OF NITROGLYCERINE IN HEART FAILURE.

By M. Howard Fussell, M.D., Philadelphia.

The results of the hypodermic use of two drops of a one per cent. solution of nitro-glycerine, in the following cases of heart failure, were so satisfactory that it seems a matter of importance to the writer to place them on record.

Case 1.—Mrs. G., aged 63, subject to dyspnœa, palpitation and recurring œdema for several years, had a slight cerebral hemorrhage two years ago. Examination at that time showed disease of the mitral valve. Under treatment with digitalis and strophanthus, the case progressed favorably until January, 1888. Suddenly on the night of January 2, the patient, after having passed an unusually good day on the first, was seized with urgent dyspnœa, so that she was unable to lie down, and she became so sick that I was summoned about 3 o'clock in the morning. I found the patient unconscious, both her lungs full of bubbling râles,

her pulse ninety, and weak, but remarkably regular considering the patient's general condition. Her breathing was stertorous, and could be heard in the next room.

The patient having previously had cerebral hemorrhage, I at first thought this attack was a recurrence of the same trouble; but the fact that there was no recognizable paralysis caused me to doubt this diagnosis. The patient's condition was so bad, however, that I told the family she was the subject of heart failure, and in all human probability would die in a short time.

At this juncture I remembered a remark made to me by Dr. John H. Musser, of West Philadelphia, to the effect that he was certain he had in such cases saved life, at least temporarily, by hypodermic injections of amyl nitrite.

The patient had been taking nitro glycerine before the attack, so I procured the bottle, gave a hypodermic injection of two drops, and retired from the room to await the death of the patient. In just twenty minutes from the time of the injection the attendants called out that our patient was dying. I went into the room, and instead of finding her dead, saw that she had raised herself in the chair in which she was propped, and was evidently conscious. I spoke to her, and received an intelligent answer. Her pulse had become still more regular than it had been before, and her breathing less labored. I immediately repeated the injection of nitro-glycerine, and in the course of an hour had the satisfaction of seeing my patient's condition so much improved that she was able to talk, and could lie down without trouble, while the râles had disappeared from all parts of her chest, except the extreme bases of the lungs. In a few days the condition of the woman was quite as good as it was before the attack, and she was able to go about the house comfortably.

Case 2 was one of typhoid fever. The patient, a man 45 years old, had had a remarkably light attack of the fever, his temperature never rising above 102 °, and by the end of the second week it had reached the normal point.

On the sixteenth day of the disease the patient awoke in the morning, saying he felt better than he had felt on any previous day. Notwithstanding the repeated warnings he had received not to make any undue exertion, he arose suddenly from his bed, reached under it for the commode, and immediately fell back in a faint. I was sent for, and on my coming found the patient in a deplorable condition. His pulse exceedingly irregular and weak, and so rapid that it could not be accurately counted; his face cyanosed; his hands and feet cold; his lungs full of râles. I immediately administered two drops of nitro-glycerine hypodermically, and applied heat externally. In a few minutes I had the satisfaction of seeing my patient's condition begin to improve. His pulse became more regular, though still exceedingly rapid, and his breathing less labored. Stimulants were then administered, and he gradually improved for two days, when death took place from another attack of heart failure, following a persistent straining at stool.

Case 3.—A man, 59 years old, an habitual drinker, and the subject of mitral disease of the heart. After retiring on the evening of May 1, he was suddenly attacked with urgent dyspnœa. He arose, was propped in a chair, and tried vainly to obtain relief from his oppression. I saw him one hour after the beginning of his attack, and found his pulse irregular, rapid and weak. His breathing was rapid, his face cyanosed, and his lungs filled with bubbling râles. He was concious, but unable to speak connectedly. Remembering my former success with nitro-glycerine, I immediately injected two drops hypodermically. This was followed in a few minutes by marked relief. In half an hour I injected one drop. At the end of three-quarters of an hour the patient's pulse was regular; he could talk easily; his breathing was almost normal. I then ordered whiskey and digitalis to be given during the night, and in the morning found him exhausted, but almost in his normal condition.

In all of the above cases death seemed imminent. In the first case the woman would certainly have died very soon had she not received prompt relief. The treatment by the hypodermic use of nitro-glycerine acted so promptly that the bystanders were very much impressed, and the physician was almost as much astonished as they were.

I have treated similar cases with stimulant hypodermics of whiskey and digitalis, but somtimes death was not averted, and when it was the relief was long delayed.

One who has seen cases of heart failure treated in the usual way can have no conception of the brilliant results which may be obtained by the hypodermic use of nitro-glycerine. The treatment has the great advantage that it is harmless in any event; and I believe it should alawys be tried, though, of course, not to the exclusion of other well-known methods of relief.—*Philadelphia Med. Report.*

GALVANISM IN THE TREATMENT OF FIBROUS TUMORS OF THE UTERUS.

Martin, of Chicago, read a paper before the American Medical Association in Cincinnati, May 9, regarding "Apostoli's Treatment of Uterine Fibromata." His general conclusions are as follows:

1. A means of generating a continuous current of electricity of steady and uniform character, that can give an actual current strength, through a resistance of two hundred ohms, of five hundred milliampères, is necessary to obtain all the benefits of this treatment.

2. Fibroid tumors of small size can be completely absorbed by the proper application of strong currents of galvanism.

3. Hemorrhages from fibroid tumors can be promptly cured by the local coagulating effect of

the positive pole applied to the interior of the uterus. Severe neuralgias, so often accompanying these troubles, can invariably be relieved by three or four applications of this treatment.

4. When the cervical canal cannot be entered by any form of intra-uterine electrode, flexible or otherwise, after repeated trials, a negative galvano-puncture should be made into the presenting part of the obstructing mass of the tumor, and an artificial canal opened, which is to take the place of the impermeable uterine canal in all subsequent treatments.

5. The intra-uterine electrode should in all cases be negative, unless there is hemorrhage or excessive leucorrhœa, when the positive pole is required. The same patient may, however, present symptoms demanding the use of both poles at successive operations.

6. The strength of the current should depend entirely upon the area of active surface of the internal electrode, and should be twenty-five milliampères for each square centi metre of active surface in actual contact with the edometrium. If more is used, the concentration of the current will be sufficient to cause troublesome cauterization. If less is used, the concentration at any one point will not be enough to cause the necessary coagulation for checking hemorrhage.

7. The duration of each sitting should be five minutes when the maximum current required is employed.

8. The number of operations is necessarily dependent upon, and influenced by, the result to be accomplished. A severe hemorrhage can be checked, and relief to the symptoms often accomplished, by four or five *séances*, while a general reduction of the tumor necessitates many operations, varied, of course, according to the size and location. In some cases of large multiple tumors a relief of the symptoms, or a symptomatic cure, must be accepted as a substitute for an actual cure.

9. The operation should be intermenstrual, if possible, but if the hemorrhage is continuous, it will be necessary to operate during the flow. The *séances* may be held every day, with the system of concentration adopted that enables one to attack different portions of the canal at succeeding treatments, or they can be given with advantage as seldom as once a week.

10. Since the adoption of the flexible intra-uterine electrodes, and Apostoli's method of vaginal galvano-puncture, extra-uterine puncture should be practiced, if at all, only as a last resort.

11. Galvano-puncture needles and the internal electrodes should be constructed of material that is not injured by coming in contact with strong carbolic acid, or 1 to 1000 bichloride of mercury solution. All electrodes for internal use should be thoroughly scrubbed with a nail-brush and soap and water after each application, and allowed to remain in one or another of these standard antiseptic solutions until they are to be employed again, when they should be washed in a weaker solution of the same before using. Before a vaginal puncture is made, the vagina should be thoroughly wiped out with a one to 3000 bichloride solution.

12. There is no excuse for any percentage of mortality in the proper application of this treatment. While Dr. Apostoli has had two deaths in two hundred and seventy-five cases, he candidly admits that they were due to avoidable accidents, and should not be considered as legitimate consequences of the operations.

13. In experienced hands, and by the adoption of the present means of concentration, the most delicate and sensitive patient can receive, without experiencing any severe discomfort, all the benefits to be derived from this valuable treatment.—*New York Medical Record.*

THE EFFECTS OF ANTIPYRETICS IN THE TREATMENT OF DISEASE.

By Alfred L. Loomis, M.D., New-York.

Before New-York State Med. Soc.:—I think one whose experience is at all extensive in the use of antipyretics in treatment of acute infectious diseases will not for a moment claim that they have any power in shortening their duration or greatly modifying their severity. Time will not allow me to enter into a detailed account of the different antipyretics now in use, to compare their relative merits, nor to theorize as to their mode of action. In a general way, they may be divided into two classes—the application of cold to the surface, and the internal administration of antipyretic drugs. The mode of action of the two cases is evidently not the same, although they may both effect the reduction of temperature. Whether they act by diminishing heat production or by increasing heat dissipation, is still undetermined; for every day's experience teaches that sometimes when antipyretic drugs act badly or efficiently, cold applied to the surface, in the form of baths or packs, often accomplishes the desired results in the most satisfactory way, and *vice versa*. It has seemed to me that the beneficial action of antipyrine and antifebrine is not so much due to their power of controlling temperature as to their tranquilizing effects upon the nervous system. Dr. Wood, from his experience on animals, concludes that antipyrine diminishes heat production and heat dissipation, and that its action on the bodily heat is entirely independent of any influence on the circulation—that it probably acts through nervous system directly upon the chemical movements of the organism.

Clinical experience has taught me that opium is often one of our most efficient and reliable antipyretics. The old custom of administering Dover's powder in small doses, at stated intervals throughout the course of a typhoid fever, undoubtedly had its origin in the power of opium to control temperature by its tranquilizing effects upon the

nervous system. As all discussions in this line mus present be theoretical and unsatisfactory, I close the consideration of this problem with the practical question: If temperature reduction does not shorten the duration, mitigate the severity, or avert serious complication in disease, and if the ratio of mortality is not so diminished as to encourage us that we are making advances by antipyretic measures, on *what bases are we justified in their use?* Evidently, only on the basis that by their use we relieve one of the many phenomena of fever. If this can be accomplished without serious loss of vitality, or at the expense of the reserved force of the patient, we are justified in their use; but do not let us imagine that by reducing temperature we are controlling fever.

PATHOLOGY OF ABORTION IN RELATION TO TREATMENT.

In a paper read before the Section of Obstetrics of the British Medical Association, Dr. Murdoch Cameron emphasizes the necessity of a careful examination of the discharged clots in every case, as the medical attendant too frequently accepts the patient's description of the discharge. In the first month the embryo may escape detection, but after that it can usually be found surrounded by its membranes, the amnion and chorion with its villi, some of which are found penetrating the decidua reflexa. To avoid the "manufacture of complications," he recommends that the membranes be left intact and encouragement given to complete the expulsion. In the early periods of pregnancy if the membranes are ruptured, there need be no hurry; but special attention should be paid to maintaining an antiseptic condition of the passages by frequent injections. If the placenta were retained he had seldom any difficulty in removing it with the finger. He had little faith in the use of instruments, unless when it was protruding from the os. He asked if the use of the blunt or sharp curette with dilatation of the os and dragging down the uterus was reasonable treatment, or whether retention of the placenta was so dangerous or common as to justify these methods? His experience did not justify such measures. With the curette one was working in the dark, and could not fail to wound the healthy membrane and so assist septicæmia, and when the amount of injury which an inexperienced person can inflict with a uterine sound was remembered, we should hesitate to recommend the curette. When hemorrhage was present he generally used an antiseptic vaginal tampon with a firm bandage, and found it sufficient. He has not had good results from ergot. If symptoms of septic poisoning are present, he uses frequent antiseptic injections. He considers that patience in these cases will do less harm than meddlesome interference. Dr. Lombe Atthill, speaking of these cases in which abortion could not be averted, said, that if hemorrhage was alarming, plugging was the most certain means of combating it. It was essential that these plugs should be removed in six hours at the farthest, when the uterus should be washed out with an antiseptic solution. It was seldom necessary to plug. He advocated the treatment by hot water injections, which was perfectly safe and nearly always efficient. He disapproved of the forcible removal of the placenta in the early months of pregnancy, until it was proved that it would not be cast off. Dr. J. A. Byrne has found that the hemorrhage accompanying or preceding abortion was, as a rule, not dangerous. He believed in the use of hot water, and also in rapid dilatation if necessary, and the removal of the ovum. In the early months of gestation there was not much trouble in removing the placenta, but after the fourth month it was most intimately attached to the uterus. Dr. A. Lawrence always plugged the cervix uteri with carbolized lint when hemorrhage was excessive. If the contents could not be cleared out he passed an iodoform bougie into the uterus and plugged with iodoform wool. If in twenty-four hours he could not clean the uterus he repeated the process. Mr. Lawson Tait was of opinion that anyone who, knowingly, left a piece of placenta after a miscarriage might well lay himself open to a charge of gross carelessness. There was no need of any dilatation or of the use of any sharp curette. His "alligator" ovum forceps would remove anything which had been left without any risk. Dr. Murphy regarded the vaginal tampon in the year 1887 as an anachronism. The place to plug was the cervix, not the vagina, and the material caoutchouc bags (Barnes' or Tarnier's), not antiseptic cotton. He thought Dr. Atthill's advocacy of the expectant treatment was founded on his experience at the Rotunda Hospital, where assistance was always at hand. In private practice this was not safe, and he invariably removed the placenta under chloroform with the fingers.—*British Medical Journal*, March 31, 1888.

WHEN TO OPEN A FELON, AND HOW TO ABORT IT.

(W. D. Hutchings, M.D.)

In order to avoid the mortifying results—necrosis, loss or deformity of finger—following deep seated paronychia, the surgeon must abandon a temporizing policy, and, at the proper time, make boldly a free incision to the pus formation. No half-way measures will answer in this case; the incision must be carried down to the point indicated, and be made sufficiently free to avoid occlusion and retention of pus, by the subsequent swelling of the parts.

The *time* to incise is an all important point in obtaining a successful issue, and is left indefinite by our best authorities. This trouble is not even noticed in the hand-books of surgery by Smith or Stimson. Surely neither of these writers ever suf-

fered with this exceedingly painful affection, else pages would have been devoted to its consideration. Is the loss of a finger, the dreadful suffering, the deformity of a hand, of such little moment that the reputation of the surgeon can not suffer thereby?

The venerated Dr. Gross, in an admirable article in his "System of Surgery," recommends an early operation, but does not designate the day or mention the *initial symptom* of the disease—a symptom which is the indicator of the day when the lancet should be used. The sensation of a splinter, briar, or foreign body being in the part where the disease is locating, is the *initial symptom*, and the subject has almost invariably endeavored to pick it before applying for advice.

The *time* for the free use of the lancet is the fifth or sixth day following the initial symptom. I never, if opportunity affords, defer its use beyond the seventh day. Almost all cases who have applied to me after the eighth day had passed have made a tedious recovery—many with the loss of a phalanx or an entire finger, the bone having been destroyed before the remedy was brought to bear.

The above remarks, of course, apply to whitlow when deep-seated. The superficial variety is an easily managed and comparatively a trivial affair. As we do not meet with whitlow in subjects free from systemic derangement, I always resort to appropriate treatment. I address the liver, administer quinine or other remedies, until the evil is overcome.

I will now consider the plan to abort. When consulted during the initial symptom, I seldom fail to abort by *inducing absorption* from continued pressure of the part. I force absorption by wrapping or binding the finger with a cord or very narrow tape—but prefer a cord of one-eighth of an inch diameter—commencing at the extreme distal end of the finger, and carrying it up to the proximal joint above the local error, and let it remain until pain and throbbing become unendurable, then quickly release the finger, and after resting it a few minutes, again rebind still more firmly in the same manner, thus binding and rebinding for half to three-quarters of an hour, until the finger is reduced to two-thirds its normal size.

By this procedure I have never failed, when the subject presented in time, to abort paronychia, or to convert it into a superficial abcess. If the patient neglects the initial stage, and a particle of pus is formed, the lancet is the only resort.

Thirty-nine years ago, the writer, then a distinguished medical student, came near being extinguished by a felonious felon; and then and there determined never again to suffer torments worse than those of Ixion's wheel, and by this method he has preserved not only himself and others, but members of his own family, time and again, from those infernal tortures.—*Ind. Med. Jour.*

TASTELESS QUININE.

In these degenerate days of malaria and "biliousnes'," quinine plays a most important part in every physician's treatment. Quinine has for years had a bitter taste, in fact "quinine by another name would be as bitter." Chemists and pharmacists of all degrees of scientific acquirements have tried their hands to make quinine tasteless, but after all there was left behind a bitter twang that was a reminder that quinine is, was, and always will be bitter. At last, when we are least expecting it, chemistry furnishes us a compound that will readily and easily disguise the intensely bitter and disagreeable taste of quinine. This chemical compound is none other than *saccharine*, a white powder that has an intensely sweet taste. Prof. H. C. Wood says that saccharine is 250 times sweeter than sugar, one grain in a pint of water gives a distinctly sweet taste. Saccharine is only slightly soluble in water, but will more readily dissolve in alcohol. Saccharine, like benzoic and salicylic acids, possesses antiseptic properties, and retards and prevents fermentation. Physiologically, it is perfectly harmless, generally passing quickly out of the body unchanged through the urine.

The following prescriptions have been used by myself in twenty-eight cases, with the result of producing the characteristic effects of quinine:

R Saccharine ʒ ss.
Quinine sulph. ʒ ss.
Acidi sulphurici dil. gtt xxx
Vini portensi ℥ i.

M. Sig: Teaspoonful every two or three hours, This mixture was very slightly better and only momentary at that:

R Saccharine gr. xvi.
Quinine sulph. gr. viii.

M. Ft. Chart. No. viii. Sig: One every two hours for a child two years old.

This was perfectly tasteless.

R Saccharine.
Quiniae sulph. aa ʒ i.

M. et Ft. Chart. No. x. Sig: One every 2 hours.

This was only very slightly bitter:

R Saccharine ʒ i.
Quiniae sulph. ʒ ii.

M. et Ft. Chart No. x. Sig: One every two hours.

This was slightly bitter, but the taste passed away in less than a minute's time.

My experience from the use of saccharine, as in the above formulae in the twenty-eight cases, justify the following deductions:

Saccharine, two or three parts to one of quinine, gives a palatable and tasteless mixture. Equal parts of quinine and saccharine give only a very slight bitter taste, and one that is only momentary. Saccharine one part, and quinine two or three parts, gives a slightly bitter taste that is not lasting.—*Medical Waif*, Lafayette, Ind.

A NEW TREATMENT OF SLEEPLESSNESS.

Eccles regards the hot bath and massage as important factors in the treatment of insomnia. The bath is to be taken immediately before retiring, and with the following precautions: The bath-room must be heated to about 70° F., then the patient must be stripped in the bath-room, the head and face first being rapidly douched with water at 100° F. By this means the body is cooled, while a rush of blood is sent to the head. Then the whole body, excluding the head and face, is immersed in the bath at 98° F., rapidly raised to 105° or 110° F. In about eight to fifteen minutes the patient feels a sensation of pleasant languor, when he must be wrapped in warm blankets, and proceed to the bedroom with as little personal effort as possible. By the time the bedroom is reached the moisture on the surface of the body will have been absorbed; the patient must then put on his night-clothes and get into bed, lying with the head raised, hot bottles to the feet, and well covered with bedclothes. No conversation or moving about the room should be allowed, and all light must be excluded. In a few minutes the patient will be found in a quiet, refreshing sleep. The theory of this method is based on sudden exposure of the body contracting the arterioles of the skin, causing thereby a corresponding dilatation of the vessels of internal organs, which in the case of the brain is further induced by the application of hot sponging. The immersion of the whole body next causes a dilatation of the vessels of the surface, except the head and face, with contraction of the vessels of the brain and gradual slowing of the heart's action, thus placing the brain in the most favorable condition for complete functional rest. There are certain conditions, however, in which this method is contraindicated. Persons suffering from extreme anæmia, or emaciation, or from aortic valvular disease, or in whom signs of atheroma are recognized, should not be subjected to such rapid variations of local arterial tension as this process entails. The author treated two cases of aortic regurgitation, in which the patients suffered from insomnia, by rest, feeding, and massage. The patient should keep the recumbent position all day, and in the evening, about 10 or 11 o'clock, a thorough kneading of the trunk and extremities should be performed. Massage of the trunk and extremities is attended by stimulation of the sensory nerves, with inhibition of vaso-motor action in the part undergoing vigorous kneading, the vessels dilate, and the force and rate of the circulation is increased, thus causing a vascular dilatation over a large area, accompanied by a corresponding contraction of other parts, especially of the brain. In order to maintain the effect of the massage on the vessels of the abdomen, a hot abdominal compress is used in some cases where sleep does not follow soon after the massage. In persons suffering from the ill effects of prolonged overwork, mental distress, morphine habit, chloral-drinking, and such like conditions, the evening kneading often causes excitement instead of repose, and if done at all it must be done at an early hour. These cases are extremely difficult to treat, and it is often necessary to administer the wet pack.—*The Practitioner*, March, 1888.

PEPPERMINT WATER IN PRURITUS PUDENDI.

Every practitioner will have had under his care cases of this troublesome affection, which have been proof against all treatment, especially in the neurosal forms, where the cause of the pruritus which is, of course, only a symptom, is more difficult to remove. No excuse, therefore, is needed to mention a local remedy, which will, if the skin be unbroken, either cure the patient, or afford relief whilst the source of the irritation is being treated.

The agent here alluded to is peppermint water. used as a lotion. The B.P. preparation of aq menth. pip. answers well, but is bulky for carrying about, and is incapable of concentration unless rendered alkaline. This is best done by borax, as being in itself soothing and antiseptic. Patients can easily make their own lotion, as required for use, by putting a teaspoonful of borax into a pint bottle of hot water, and adding to it five drops of ol. menth. pip., and shaking well, the parts affected to be freely bathed with a soft sponge.

If no cracks or sores are present, this lotion will remove the itching, but if there be eczema, etc., or rawness from scratching, it is inapplicable, olive oil, with five grains of iodoform to the ounce, being then more useful. The greatest and most permanent relief is afforded in the neurosal form, especially in the reflex purritus which often accompanies pregnancy, and which then may take the place of reflex sickness or vomiting. It is also very useful in the pruritus which occurs in the climacteric, or in elderly women, in whom it may be only part of a general pruritus, and also in those cases of women of all ages, where the urine simultaneously becomes of very low specific gravity, without any evidence of having a gouty or granular kidney as a remote cause.

In pruritus due to pediculi, ascarides, an irritable urethral caruncle, an endocervical polypus, early cancer of the cervix, distension of Bartholini's ducts or glands, the leucorrhœa of vaginitis, endocervicitis, and metritis, or the irritating discharges of advanced carcinoma uteri, or to a gouty or diabetic diathesis, the drug excels all others, cocaine inclusive, in affording relief, whilst endeavors are being made to remove the cause.

In two obstinate cases of uncontrollable pruritis of pregnancy, where this remedy only gave temporary relief, the patients were cured by applying iodine liniment to the angry looking cervix

uteri, which method has been used successfully by Dr. John Phillips and others for the similarly severe vomiting of pregnancy.

Peppermint has long been used by the Chinese as a local remedy for neuralgia, and has lately been sold here, combined with camphor, as a menthol. It appears to act as a local anæsthetic. its effect lasting often many hours, and in some cases of reflex origin a single application of the lotion has cured the patient The remedy was, I believe, named in a casual communication to the *Journal* about twenty years ago, but I have failed to find the reference, and though it has been prescribed spasmodically by my father, and perhaps by others, its extreme utility seems known to very few.—Dr. Amand Routh in *British Medical Journal.*

TREATMENT OF WARTS.

Rœsen has found the following procedure very serviceable in removing warts, callosities, etc.:

The thickened epidermis is slightly moistened with an antiseptic solution (boracic or salicylic acid) and then covered with a fairly thick layer of pure crystallized salicylic acid. Over this is placed moist borated lint in four layers, a piece of gutta-percha fabric, and a bandage. In the case of small warts and callosities, the dressing is allowed to remain for five days. On removal it will be found that the thickened tissue is somewhat shrunken and has separated from the subjacent parts, which are covered with perfectly normal skin, presenting no traces of injury or bleeding. The author has never seen any caustic effect from this application on the surrounding, and subjacent tissues. If the callosity is of any considerable thickness, as is often seen on the sole of the foot, the dressing should be left in place for ten days, or renewed after five days. The great advantage of this application is that the effects of the salicylic acid are localized to the thickened area.—*Munchener Medic. Wochenscher.*

ADVANCES IN THE TREATMENT OF SYPHILIS.

Neisser gives the following injunctions:

1. Every local infection suspected of being syphilis must be destroyed by energetic local treatment as early as possible, or removed by deep incision. If there is no syphilitic infection present, the slight operation is at least harmless, and if syphilis be present, it may undoubtedly be removed once and for all by excision.

2. Well marked primary lesions should be deeply excised when their situation permits of it, as, in the author's opinion, complete cure of the syphilis may thus be brought about.

3. Constitutional treatment must be one of mercury; must never be begun before the diagnosis is firmly established; must never be considered as completed before the fourth year of the disease.

4. The most agreeable and convenient mode of administration is the internal method.

5. The surest, most rapid and efficacious method is that of hypodermic injection of the drug. Inflammatory tendencies are reduced to a minimum by suspending the calomel in oil.—*Weekly Med. Review.*

TINCTURE OF IRON; ITS ADMINISTRATION.

According to *Science* (*Nouv Remèdes*), recent experiments made with the ferric chloride diluted with water, show that the deleterious action of this preparation upon the teeth arises in consequence of such dilution. The phenomenon is thus explained, the addition of water to the alcoholic solution precipitates the peroxide in flakes, and as these can offer no protective covering to the teeth, the acid set free by decomposition acts directly upon the salts of lime composing them. When the solution is given pure, there can be no chemical action; the peroxide then formed is anhydrous and adheres to the teeth which it thus protects against the action of the acid. The experiments appear to demonstrate, so says the writer, that only three liquids can be properly used in diluting the ferric choloride: alcohol, vichy water, and simple syrup.

FOR CHILLBLAINS.

Valentine Mott's remedy is as follows:

℞

Beef's gall.....	4 ounces.
Ol. terebinth,.....	4 "
Spts. vini. rect., 90 per cent ..	1½ "
Tinct. opii,.....	1 "

Another formula for the same affection is:

℞

Beef brine,.....	1 pint.
Potassæ nitratis,.....	2 drachms.
Aquæ ammoniæ,.....	3 ounces.

—*Medical Classics*, Oct., 1887.

JABORANDI IN OBSTRETRIC PRACTICE.

By Jerome Hardcastle, M.D., Cecilton, Md.

Med. and Surg. Rep. April 7:—Having for many years noted the fact that parturition does not progress favorably till diaphoresis occurs, I have for some months past induced this condition, in the early stage of labor by giving fl. ext. jaborandi (green—the brown has proved worthless in my hands). My plan is, when called to a case, to order a warm brick to be applied to the feet—which are always cold, and then to give one-third of a teaspoonful of fl. ext. jaborandi in half a wineglassful of water, and repeat the dose every half hour until perspiration occurs. It is

very seldom that more than two doses are required. The first effect of this medicine on the patient is soothing, she becomes more quiet, and bears her pains with resignation. Upon being questioned the patient often states that her pains do not hurt her as they did. On examination, after diaphoresis occurs, the os will be found dilating rapidly; the soft parts to be in a favorable condition; and in a short time the labor will be satisfactorily terminated. Should the patient appear weak from the sweating, I wipe her face and neck with a dry towel, and give her a teaspoonful of whiskey or half as much of aromatic spirits of ammonia.

Since using the above remedy, I have had no occasion to use ether, chloroform, or the forceps. I have not seen any mention of the use of jaborandi in obstetric practice; but, having had such favorable results from its employment I recommend it to the consideration of the profession.—*Epitome of Pract. Med. and Surgery.*

TREATMENT OF POST-PARTUM HEMORRHAGE.

Dr. R. N. Foster writes in the *Medical Era* as follows: Treatment for post-partum hemorrhage, in order of use.

First. One hand outside;

Second. One hand outside and one inside;

Third. Ergot, one to two teaspoonfuls, in water;

Fourth. Injections of hot water;

Fifth. Injections of cold water, or the introduction of ice into the womb;

Sixth. Injections of vinegar, hot or cold;

Seventh. Injection of persulphate of iron, or muriated tincture of iron, two drachms to a pint of water.

Treatment for puerperal convulsions:

First. Give the woman chloroform, and keep her under its influence:

Second. Deliver her as soon as possible;

Third. If it takes too much chloroform to quiet her, administer a hypodermic injection of morphine, ⅛ to ¼ grains;

Fourth. After administration of morphine, use chloroform with caution;

Fifth. Have a competent person remain by the patient, at least twenty-four hours after delivery, ready to give choroform should there be the least sign of returning spasm.—*Epitome of Pract. Med. and Surgery.*

POISONING BY A TEN-GRAIN DOSE OF ANTIPYRINE.

By S. PETERS, M.D. Cohoes, N. Y.

Med. Register, Mar. 24:—For a severe headache, of a nervous character, in a lady—Mrs. H.—of about twenty-five years of age, and otherwise healthy, I prescribed two powders (ten grains each) of antipyrine, one to be taken an hour after the first, if needed. She took one about 9.30 P. M., and in two or three minutes she began to experience a "snapping" in her head, along with an itching and burning in the mouth and throat, particularly in the roof of the mouth. This feeling also extended to the eyes, nose, and ears, and became so violent that she involuntarily thrust her fingers into her mouth and ears to seek relief. The "snapping" in the head increased in intensity until she became almost frantic, and ran up and down the room, screaming, partially losing control of herself, and apprehending acute insanity. Sneezing soon commenced, and became extremely violent, the act being repeated at least fifty times, while the nose and eyes were running a very copious, watery fluid. The turgescence of the mucous membrane was so extreme that she could not breathe through the nostrils for several hours—indeed, not until the next day. Following all this, there was a stupid, tormenting feeling, with swelling of the nose and eyes, till, exhausted, she finally fell asleep. This sleep was disturbed and tiresome, but the headache proper was relieved. The most violent part of the process continued for only about ten minutes, but recovery was not perfect till the next day.

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BURIAL REFORM.

The disposal of the bodies of the dead is evidently a subject which is attracting considerable attention from scientific men. The improvements in the present methods may be divided into negative and positive. The former including those which merely look to getting rid of them with the least injury to the living, such as using coffins of the most perishable and lightest material, all lasting substances

being rejected; burial immediately after death; interment in plain earth with total disuse of vaults and bricked graves, and rapid decomposition by means of heat, known as cremation. The positive improvements consisting of turning the dead body to useful purposes. One recent writer advocates the abstraction of fatty matters to be turned into soap, candles and glycerine, and the drying and pulverizing of the muscles and bone, so as to form a valuable manure resembling guano, rich in ammonia and phosphates. Another writer suggests that we should hand over all that is mortal of our departed relatives to the gas company, which would give us in return a *bon* for so much illuminating gas, which they would distil from it, keeping as their share of the profit the coke, ammonia and tar, with its endless possibilities of beautiful color. He terminates his article with the grim remark that it would then be possible for a beauty to appear at a ball, decked in hues from, and literally shining in the light of, her ancestors.

WESTERN HOSPITAL.

There is at present a large attendance at the out-door department on Mondays and Thursdays, when the gentlemen who are interested in studying the diseases of women have ample opportunities for practical work. Two members of the class are detailed each day to make examinations and record their observations, under the direction of the lecturer on Gynecology, Dr. Lapthorn Smith. As the material is practically unlimited, their opportunities are only bounded by the time they care to devote to it.

In the in-door department the staff attend every day at 12 o'clock.

Dr. McConnell gives a practical clinic on diseases of the heart and lungs, every Monday at 11 o'clock.

IMPROVEMENTS IN PHARMACY.

At the invitation of Mr. Lawrence, of the Davis and Lawrence Manufacturing Company, a representative of the RECORD was lately shown over their extensive factory. This establishment is the outcome of the National Policy, as owing to the Protective Tariff manufacturers for the Canadian market are obliged to manufacture their goods in Canada. It may not be generally known to the physicians of Canada that Messrs. Wyeth & Bro. of Philadelphia now manufacture all of their preparations in Montreal, and sell them in this market at the same prices as they get for them at home in the United States where competition is much greater. We understand that this firm were the pioneers, so to speak, in introducing to the medical world the new and elegant preparations which have almost done away with the old style of dispensing. Their compressed triturates, for instance, are exceedingly convenient for country practitioners and others who desire for various reasons to dispense their own medicines. Instead of having to laboriously weigh them out and do them up in powders, he has only to count out the desired number, all ready, accurately weighed and compressed into the form of a neat little tablet. As an instance of the saving of time which this effects, we might mention that having a prescription for a powder which we very often use, which requires the greatest care and exactness in putting up, we handed a small package of the ingredients to this establishment, and in a few minutes we received it back in the form of the proper number of tablets, each of the proper weight. The machinery by means of which this result is obtained is exceedingly ingenious, but would have to be seen to be properly appreciated. Each machine is presided over by a neat but demure little maiden, as bright and clean as the polished steel before her. There was one feature of this factory over which our reporter was especially eulogistic, and for which the firm cannot be too highly commended, the large amount of space allowed for each operator and the ample facilities for getting light and sunshine. This firm seems to understand that good work cannot be got out of people who are breathing bad air. The whole appearance of the place and the method of doing business reminded us forcibly of Squibb's celebrated establishment in Brooklyn.

Our space does not permit us to specify all their preparations, but the most important are the hypodermic tab ets which no physician should be without, as they are always fresh and ready for use. Also the tablets of rhubarb and soda, bismuth and pepsine, and the old reliable five and ten grain Dover powders. In conclusion, we are informed by Mr. Lawrence that they will be glad to show any of the profession over their factory, as they feel sure that any such will leave feeling satisfied that everything is carried on with the sole object in view of obtaining accuracy, uniformity and perfection in manufacture.

THE CODE OF ETHICS OF THE AMERICAN MEDICAL ASSOCIATION.

OF THE DUTIES OF PHYSICIANS TO EACH OTHER, AND TO THE PROFESSION AT LARGE.

ART. I.—*Duties for the support of professional character.*

1 Every individual, on entering the profession, as he becomes thereby entitled to all its privileges and immunities, incurs an obligation to exert his best abilities to maintain its dignity and honor, to exalt its standing, and to extend the bounds of its usefulness. He should, therefore, observe strictly such laws as are instituted for the government of its members; should avoid all contumelious and sarcastic remarks relative to the faculty as a body; and while, by unwearied diligence, he resorts to every honorable means of enriching the science, he should entertain a due respect for his seniors, who have, by their labors, brought it to the elevated condition in which he finds it.

2. It is not in accord with the interests of the public or the honor of the profession that any physician or medical teacher should examine or sign diplomas or certificates of proficiency for, or otherwise be specially concerned with, the graduation of persons who, they have good reason to believe, intend to support and practice any exclusive and irregular system of medicine.

3. There is no profession from the members, of which greater purity of character and a higher standard of moral excellence are required, than the medical; and to attain such eminence is a duty every physician owes alike to his profession and to his patients. It is due to the latter, as without it he cannot command their respect and confidence; and to both, because no scientific attainments can compensate for the want of correct moral principles. It is also incumbent upon the faculty to be temperate in all things, for the practice of physic requires the unremitting exercise of a clear and vigourous understanding; and, on emergencies, for which no professional man should be unprepared, a steady hand, an acute eye, and an unclouded head may be essential to the well-being, and even to the life, of a fellow creature.

4. It is derogatory to the dignity of the profession to resort to public advertisements, or private cards, or handbills, inviting the attention of individuals affected with particular dieases—publicly offering advice and medicine to the poor gratis, or promising radical cures; or publish cases and operations in the daily prints, or suffer such publications to be made; to invite laymen to be present at operations, to boast of cures and remedies, to adduce certificates of skill and success, or to perform any other similar acts. These are the ordinary practices of empirics, and are highly reprehensible in a regular physician.

5. Equally derogatory to professional character is it for a physician to hold a patent for any surgical instrument or medicine; or to dispense a secret *nostrum*, whether it be the composition or exclusive property of himself or of others. For, if such nostrum be of real efficacy, any concealment regarding it is inconsistent with benificence and professional liberality; and if mystery alone give it value and importance, such craft implies either disgraceful ignorance or fraudulent avarice. It is also reprehensible for physicians to give certificates attesting the efficacy of patent or secret medicines, or in any way to promote the use of them.

PERSONAL.

Dr. Gardner, Professor of Gynecology in McGill College, owing to continued ill health, has decided to leave about the 1st July for a few months' holiday in Europe. Our confrère is a prime favorite with the profession, and we cannot afford to loose him, so that we join in the general wish of his numerous friends that he may return with his health and strength firmly re-established.

Dr. Stewart of McGill has left town to spend a few months in Europe.

Dr. F. W. Campbell, Dean of Bishops' College has been called away to Metapedia, to attend a wealthy New Yorker. It is probable that he will combine business with pleasure and make his visit a "flying" one in a double sense, and we hope with his usual success.

Dr. Major will be absent from the city for several months.

We are glad to learn that a short course of lectures on Physiology and Hygiene will be delivered by Dr. Reed to the pupils of the McGill Normal School. We consider this a move in the right direction, and an example to be followed by every school.

Mr. Jack, who was appointed to the position of Resident Clinical Assistant to the Western Hospital, a few months ago, has been obliged to resign, owing to ill health, which was unequal to the strain of such a responsible position. Mr. Nichol has temporarily replaced him. In this connection we venture to suggest that the duties of the position are sufficiently onerous to require the undivided attention of a fully qualified graduate.

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ASTHMA.

A CLINICAL LECTURE, DELIVERED AT THE MONTREAL GENERAL HOSPITAL,

By F. WAYLAND CAMPBELL, M.D., L.R.C.P. London, Dean of and Professor of the Theory and Practice of Medicine in the Faculty of Medicine of the University of Bishop's College.

GENTLEMEN,—The patient now before you is suffering from spasmodic asthma. When the attack is not present, auscultation does not reveal anything abnormal. During an attack you will hear on using the stethescope, whistling and wheezing sounds. Bronchitis and emphysema are often found co-existing with this disease, and when present you will have these characteristic signs. To any student who desires to study fully this disease, I would recommend Hyde Salter's work on Asthma. He says that every case of Asthma has a climate which will cure it. The trouble is we cannot tell just what climate will suit each case,—but it is somewhat singular that the majority of cases seem to do best in the dirty, smoky air of large cities. Hereditary spasmodic asthma is difficult, if not impossible, of cure, though very much can be done to relieve and diminish the frequency of attack. This disease has strange vagaries. Persons may often be all but permanently relieved by changing the house in which they live, but any return to the original place of attack is certain to bring about a recurrence. The chief characteristic is the suddenness of the onset. Occasionally, however, there is some warning, such, for instance, as an unusually large discharge of pale, limpid urine. Then the patient has an extreme sense of suffocation, with tightness and oppression across the chest. He is forced to loose every particle of clothing, and at times so great is the dyspnœa that he rushes to the window, and places his head in a draught of fresh air. If this is not done, he sits upright, resting his arms or elbows on some support. Every muscle of respiration is called into action. We soon have signs of overloading of the venous system—the face cyanosed, lips blue, extremeties cold, and pulse small and quick. The great majority of cases occur during the night, very often at the same hour every night. A hearty meal before retiring is often known to induce an attack, which may end suddenly after lasting a few hours, or it may last a day or more, though the last is seldom. Occasionally a cough sets in towards the close of an attack, but the expectoration is slight, as a rule. The prognosis is favorable, death being a rare occurrence during a fit, as it is termed, of the disease.

The treatment of asthma is divided into treating the paroxysm, and treatment to prevent a recurrence. In treating asthma it is best always to use single remedies. It would take more time than we have at our disposal to mention even all the drugs which have been found beneficial. To relieve an asthmatic paroxysm, tobacco is one of the best. It is of course very likely that a patient using tobacco for this purpose may acquire a fondness for the weed, but if it is going to be useful in future attacks, he must not use it as a social comfort, or it will loose its effect. At times a few whiffs of a cigar will stop

the paroxysm, but as a rule the smoking must be continued till constitutional effects are manifested by a depressed circulation, cold perspiration and nausea. If the heart is weak this remedy must not be employed ; smoking Datura Tatula is often very useful. Stramonium,—smoking the leaves is also a common remedy. They may be smoked alone in a pipe or in cigarettes, or the leaves may be mixed with tobacco, and made into cigars. In the same way the leaves of Hyosciamus and Belladonna have been found valuable. The most common remedy is saltpetre paper. A saturated solution of nitrate of potassium is prepared, and in this is soaked blotting paper, which is then dried and cut into strips ; when lighted, those strips burn slowly, and the patient inhales the smoke. Some advise a very small proportion of arsenic to be added to the saltpetre solution. Cocoa leaves are also advised to be smoked, mixed with ordinary tobacco. The latest remedy is pyridene. This is used in quantities of a drachm, and vaporized on a hot plate in a closed room. It is said to be very useful. Emetics are sometimes found useful, and perhaps the best is Tartar Emetic. Nitrate of Anyl is often very serviceable in relieving a paroxysm. Nitro-glycerine gtt. 1 of a 1 per ct Sol. is recommended also. Sudden fright has been known to instantly cure a paroxysm. Chloral Hydrate, where the heart is not diseased or weak, in doses of 15 to 20 grs. is very good ; ¼ gr. of morphia combined with $\frac{1}{200}$ of a gr. of sulphate of atropia will as a rule cut short an attack. If frequently used there is the danger of the Morphia habit, which is much worse than an attack of Asthma, bad as it may be ; stimulants are bad, and never should be used. To prevent the return of the disease, there are several useful remedies, and first on the list stands arsenic, which must be continued for several months. Ammonium Bromide is well spoken of. The Bromides are eliminated by the bronchial mucous membrane, and are believed to exert a local anæsthetic effect. Potas. Bromid. is also used. Cimicifuga, a plant indigenous to this country, is a remedy not so much used, as I think it deserves to be. Quinine may be used both during a paroxysm and afterwards. If an attack is expected, say about one in the morning, a full dose of Quinine at 9 o'clock the preceding evening will sometimes prevent its coming on, or it may only modify the severity of the attack. It sometimes fails to have any effect. Another remedy introduced during the last few years is Grindelia Robusta. It is highly spoken of, and may be given in doses of ½ a drachm of the Fld. Ext. several times a day. In some patients who are sufferers from Hay, Asthma or Hay fever, there has been recently found hypertrophy of certain portions of the schneiderian membrane. These hypertrophied points, are believed to be potent parts of irritation, and their destruction, by means of the galvano-cautery, have been followed by excellent results. This is a very recent advance on the pathology of this disease. Still more recently it has been suggested that possibly, in ordinary asthma, these points of hypertrophy may also exist in the trachial and bronchial mucous membrane. These points cannot of course be reached by the cautery, but it is suggested that this condition can be remedied by the persistent inhalation for months of the vapor of Iodine and Carbolic Acid. It is theoretically a good practice. I have seen hypertrophied tonsils greatly improved by this inhalation. Attention to diet is important. Indigestible articles must be avoided, and asthmatics must absolutely avoid eating before going to bed.

Society Proceedings.

MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

Stated Meeting, March 2nd, 1888.

JAS. PERRIGO, M.D., PRESIDENT, IN THE CHAIR.

Muscular Atrophy.—Dr. Stewart exhibited two cases of muscular wasting.

Extirpation of the Uterus.—Dr. Wm. Gardner exhibited two uteri removed by the vaginal method. In the first case, the patient, aged over 50, was sent to him by Dr. A. A. Browne of this city. There was a history of menopause for several years, then hemorrhage and other discharges for eight or ten months, and severe pelvic pain for three or four months. Decided failure of strength and general health. On examination, a friable, ulcerated, easily bleeding condition of the cervix. No enlargement of the uterus or palpable involvement of vagina and broad ligaments. The diagnosis was cancer,

and extirpation of the uterus advised. The patient consented, and the operation was done on the 18th of February. On opening the uterus, the diseased action was found to have extended some distance within the cavity of the body, thus accounting for the severe pain. The patient made an easy recovery, and left Dr. Gardner's private hospital, feeling better than for months previously.

The second specimen was from a patient of Dr. C. O. Browne of Knowlton. She was aged 29, married twelve years; five pregnancies, all to full term, the last labor two years and four months previously. She had suffered from uterine symptoms and intense nervousness for six years. All the symptoms had been much worse for twelve months, during which time pelvic pain, hemorrhage and dirty-colored vaginal discharges were constant and pronounced. On examination, the uterus was retroverted and prolapsed, the cervix lacerated, of stony hardness, and the posterior lip occupied by an ulcer which Dr. Browne asserts to have existed for four months. The diagnosis was probable malignant disease, and extirpation recommended. Three weeks later she entered Dr. Gardner's private hospital, and the operation was done on 1st March. The method adopted in this case was that practised by Martin of Berlin, the posterior cul-de-sac being opened as the first step. The patient made a tedious recovery. The pulse ranged for several days from 150 to 180, being, in fact, at times scarcely to be counted. Other symptoms were without any alarming feature. The pulse before operation was between 120 and 130. The specimen was pronounced by Dr. Johnston to be not malignant, but in view of the clinical character of the case, and the fact that the microscope was not always a certain means of diagnosis of cancer, Dr. Gardner felt justified in extirpating the uterus and ovaries in this case. The operation had been done in Germany several times, for conditions well known not to be malignant, but not amenable to other methods of treatment. When the mortality has been reduced, as in Leopold's hands, to six per cent., as a result of improved technique and otherwise, then he (Dr. Gardner) considered it perfectly justifiable for certain cases other than malignant, and in future he intended to advise it for a limited number of such. This was the fifth case in which he had extirpated the uterus without a death and without alarming symptoms.

Dr. Roddick asked if Dr. Gardner would recommend extirpation of the uterus for chronic endometritis.

Dr. Gardner replied that the question was an important one that often presented itself to the gynæcologist. The operation is now done with comparative safety, and in selected cases would certainly operate in this way.

Dr. J. C. Cameron referred to the necessity of microscopic examination of the tissues removed by scraping, before a diagnosis of malignant disease is made. The microscope is not used as much in America as it should be in such cases. The German gynæcologists are setting us an example in this respect.

Sutured Patella.—Dr. Bell showed a patella which had been sutured five months previously. The patient, a young Norwegian sailor, fell from the rigging of his ship and fractured his patella, nine weeks prior to the arrival of his ship in port. He had had no treatment of any kind. He was admitted to hospital on the arrival of his ship in port, when the patella was found to be fractured transversely through its centre. There was no sign of any union, and on flexing the leg the parts separated widely, so that the articular surface of the end of the femur could be distinctly felt through the skin. The patella was treated by paring off the rounded cartilaginous faces of the fracture, and suturing with three strong sterilized silk sutures. The first dressing was not removed for six weeks, when the wounds were all perfectly and soundly healed, and the patella apparently firmly united. A splint was applied for three weeks longer and then removed, and the patient allowed up, and advised to practice passive movement of the joint. After three weeks of this passive motion the union of the patella fragments seemed to be not so firm, and the patient was put to bed and a plaster-of-Paris splint applied. In six weeks more this was removed, and the house surgeon applied a light posterior splint of Gooch's ribbed splinting, and with this he walked about in perfect health and comfort until the 22nd of January, four months after operation, when he complained of a little fever and some pain in the leg and knee. On examination, the knee was found tender and slightly swollen, and a sore which had been produced on the skin by the

corner of the splint and dressed with a little dry gauze was found to contain fully an ounce of pent up pus, which was removed and the wound treated. He also had a suppurating ingrown great toe nail on the foot of the same side. Pyæmia developed, and the patient died in four weeks, just five months and a half after operation. The pyæmia was undoubtedly due either to the sore on the skin or the ingrown toe-nail, and could not have been in any way directly due to the operation, as the knee had been perfectly healed and free from pain or other symptom for over three months before the pyæmic symptoms appeared. At the autopsy, ulcerative endocarditis was found, as well as several purulent foci in internal organs. The patella was found to be perfectly united, the union being quite firm and evidently bony. The silk sutures were found just as they had been left at the operation, the silk being apparently unchanged.

Discussion.—Dr. ARMSTRONG said he thought the specimen showed bony union, and asked Dr. Bell why he thought the union was not good when the dressing was taken off.

Dr. BELL replied that there was movement at that time between the parts, though subsequently complete union occurred.

Dr. RODDICK congratulated Dr. Bell on the excellent result of this operation, and was inclined to accept his explanation of the cause of the pyemia, as, if the knee had been the starting point, there would not have been such union, and the joint would have been seriously affected. He referred to a case of a young girl recently confined, who came to hospital with a painful knee. The bursa patellæ was found enlarged, and on the inner side of the leg, two inches above the inner malleolus, was a small ulcer the size of a shilling, unhealthy and sloughing; proceeding up from this was swelling and suppurative cellulitis to the bursa patella, which also was in a state of suppuration. The bursa was opened, cleaned and drained, and the cellulitis and ulcer treated, with the result that the girl was well in two weeks.

Dr. SHEPHERD saw the case with Dr. Bell in hospital. He found undoubted mobility after the dressing was removed, and did not think now that the union was a complete bony one, but the parts were no longer movable. He thought there was a line of fibrous union between the fragments. The pyæmia was not due to the operation, but to sores on the leg and foot.

Stated Meeting, March 25th, 1888.

JAS. PERRIGO, M.D., PRESIDENT, IN THE CHAIR.

Subdiaphragmatic Abscess. — Dr. SHEPHERD exhibited the patient, whose case he had related at a previous meeting of the Society, and who had suffered from subdiaphragmatic abscess. When the case was reported to the Society, a sinus remained below the costal cartilages on the right side. This had now completely closed, and the patient felt as well as ever he did. Liver dulness was normal, and breath sounds in right lung clear in every part.

The Bacillus Scarlatinæ.—Dr. MCCONNELL read the following paper on this subject :—

The nature of the contagium of scarlatina is a question which has during the past year occupied a prominent place in English medical societies and periodicals. In December, 1885, an outbreak of scarlatina occurred in London, and it was supposed that the infection was conveyed by milk from a dairy in Hendon. The subject was investigated by Dr. Klein. Several of the cows were found to be suffering from an infectious disease characterized by vesicles and ulcers on the udders. From this Dr. Klein isolated a streptococcus. He also discovered a similar organism in the blood of scarlatina patients after the fourth day. Inoculation experiments were performed, and Dr. Klein concluded that the Hendon cow disease was identical with scarlatina. In a critical review of this subject by Dr. Geo. Thin, at the Dublin meeting of the British Medical Association, doubts were cast upon these conclusions; and later, Prof. Crookshank was deputed by the Agricultural Department of the Home Office to make further investigations. Abstracts of the voluminous reports of the investigation were, in December last and January of this year, placed before the Pathological Society of London. The conclusions arrived at were that the *streptococcus scarlatinæ* of Dr. Klein was identical with *streptococcus pyogenes*, a micro-organism found in acute abscess, etc., and frequently found associated with a number of other affections, and that the Hendon disease was cow-pox.

Researches regarding the nature of the contagium of scarlatina were made in the early part

of 1887, at the Bacteriological Laboratory of Edinburgh University, by Dr. Alex. Edington. Eight different organisms were isolated. A streptococcus, provisionally specied as *rubiginosus*, was found in 20 per cent. of the original tubes inoculated with scales from scarlatina patients during the stage of desquamation, or from the blood, and is apparently identical with Dr. Klein's streptococcus scarlatinæ. A bacillus was found to be present in the scales in every instance when examined after the third week, and in every case the same bacillus was found in the blood during the first three days of the fever. Rabbits and calves were successfully inoculated, producing a disturbance and appearance resembling scarlatina in man. The conclusions formed were that this bacillus (called *B. scarlatinæ*) was the specific cause of scarlatina, and that the other organisms were " merely concomitants, and pass into the blood only after the vitality of the system and tissues has been lowered by the entrance of this specific or ganism."

In September last I inoculated test tubes of potash peptone gelatine from several cases of scarlatinæ, using sterilized capillary tubes, to which about an inch of the original glass tubing remained, this part being plugged with cotton wool ; the finger from which the blood was taken being previously covered with lint saturated with a 20 per cent. solution of carbolic acid. In the first case the blood was examined about the beginning of the fourth day of the disease. The tubes, on being incubated, were all found to be sterile. The blood of another child in this family was examined on the second day of the disease, when almost a pure culture of Edington's bacillus was obtained.

On Oct. 13th, 1887, similar cultivations were made from a child, five years of age, suffering from scarlatina, on second day of fever ; and also from her sister a few days later. The same bacillus was procured. The lower limb of the first child was in accordance with Edington's method of securing the desquamation, wrapped in sterilized cotton wool, after being cleansed and disinfected. The scales procured on the twenty-second day gave an abundant culture of the same bacillus, associated with micrococci. The character of this organism, as you can ascertain from an examination of these stained specimens and cultures, are distinctive. Dr. Edington's description appeared in the *British Medical Journal* of August 6th, 1887. The bacillus, which is motile, is from 2 m. to 5 m. in length and 4 m. to 5 m. in breadth ; it is markedly acrobic, grown on jelly in the incubator at from 18° C. to 23° C., it will form a pellicle at the surface in from 24 to 36 hours. The time in which the pellicle will form, and the rapidity with which it will liquify the gelatine, is less, where the material used is the last of a number of successive inoculations from tube to tube which increases its activity. The pellicle forms more readily on bouillon, is semi-transparent, looking like parchment, very firm, and formed by the interlacing of the bacilli into a felt-like membrane, it now becomes wrinkled, and the margin may be pushed up the side of the tube ovoid ; spores then form, and in three or four weeks the pellicle will disappear. It grows rapidly on milk and on potato, forming a citron-white pellicle, which becomes darker in color ; grows less readily on agar-agar, and poorly on blood-serum. On plates the growth is characteristic. The colonies grow for a day or two before the gelatine begins to liquify ; this occurring first in the centre, and proceeding outwards, the bacilli then become motile, and later assumes the form of Leptothrix filaments. The colony then has the appearance of three zones—Leptothrix in the centre, actively multiplying bacilli at the margin, and motile bacilli at the edge of the liquified portion.

The point of chief interest is the fact that the bacillus is found in the blood only up to the third day of the fever, and not in the desquamation until the twenty-second day. The rapid growth of the bacilli is in harmony with the short period of incubation of scarlatina, and the finding of the bacilli in the scales is in accord with their well known infectiousness ; and the prolonged duration of their infective powers is explained by the tendency to spore formation, even in the blood, which characterizes the bacilli. The practical utility of this addition to our knowledge concerning scarlatina was demonstrated by Dr. Jamieson,—at whose suggestion the experiments were carried out,—even before the discovery of the real nature of the contagium, from the fact that by applying antiseptic remedies to the throat in the earliest stage, bathing the surface, and applying carbolized ointments as soon as desquamation began, he was enabled,

on the arm of a friend, without whose assistance without any special isolation of the patients, to prevent the spread of the disease to any other member of the family in which it occurred, even in instances where a number of young children were allowed to associate as usual with the affected member. During the last three years this happy result had invariably been attained. Although not yet fully trusting to these baths and anointing alone—that is, without isolation—one case where this was impossible illustrates the utility of these measures. In this family there were three children; the oldest had scarlatina on Dec. 15th last; the anointing was fully carried out, and although the children mingled together constantly, the others escaped the disease.

Further investigations will be required before this organism can be fully established as being the true specific cause of scarlatina, as evidenced by the first report of the committee of the Edinburgh Medico-Chirurgical Society appointed to investigate the subject, in which they stated their inability to infect calves by either blood or scales of scarlatina patients. Their susceptibility to scarlatina is a point claimed by both Drs. Klein and Edington in their experiments; but that we have in the antiseptic treatment of the skin and throat a means of preventing the spread of the disease seems well established, and should the claims of Dr. Illingworth for biniodide of mercury as an abortive in this disease be sustained, great advance has been made in the management of this prevalent affection, and the night of empiricism, which has hitherto prevailed in regard to the treatment of this class of disease, we may anticipate will soon give place to the light of scientific methods.

A Case of Lightning Shock.—Dr. Mills read a paper on this subject, and Dr. Buller gave the intra-ocular changes produced.

Stated Meeting, April 6th, 1888.

James Perrigo, M.D., President, in the Chair.

Alopecia Areata.—Dr. Armstrong exhibited the case, and gave the following history: The patient is a young woman of 25; married last November. About a month after marriage noticed a large bald patch a little behind and to the right of the situation of the post-fontanelle. From that time to the present new patches have continued to appear at short intervals on different parts of the head, until now there are twelve or fourteen patches, varying in size from a 20 cent piece to that of a half dollar, and situated back and front and at both sides. It is for this reason principally that I show the case. There is still a difference of opinion as to the etiology of this form of alopecia. Thus Duhring and Stelwagon, in Pepper's System of Medicine, Vol. IV, state that the disease is "not parasitic, nor is it contagious." Balmanno Squire, in the third volume of Reynolds' System of Medicine, defines the disease as contagious, and produced by a vegetable parasite, the *microsporon audonini*, and he inserts an illustration of the spores of the fungus. The appearance of these patches, situated on all sides of the scalp, suggests very strongly to me the idea that the disease is parasitic. If due to nerve disturbance, one must admit that some cause is acting which involves the terminal twigs of many different nerves and of several branches of the same nerve. I am not familiar with any variety of nerve disturbance at all analogous to the condition which obtains in this case of alopecia. The large patch, with several smaller ones appearing secondarily and subsequently, suggests the idea of contagion, the same as occurs in ringworm of the scalp. I know of an instance where father and son suffer from alopecia areata, the one having it some time before the other.

Discussion.—Dr. Bell said the ordinary clinical history of the disease was against the theory of a parasitic origin. The pathology is very doubtful. He never made a practice of separating patients from the rest of the family, and in most cases there is recovery in a few months, but the hair is apt to come in differently pigmented, if not white. Treatment was usually expectant, used a shampoo to keep the skin healthy, and gave tonics.

Dr. Trenholme had seen coal oil, well rubbed in, restore the color of hair when the color was spoiled.

Fibroid of the Uterus.—Dr. Lapthorn Smith exhibited a patient to illustrate the effects of electrical treatment, and read the following history:—

The patient came to me on the 19th March, very wretched in appearance, and leaning heavily

she was hardly able to walk. She measured 32 inches around the waist, although her normal waist measurement she said was 21 inches three years ago. I was unable to pass the sound any further than 3½ centimetres, but with it at this distance I gave her 50 milliamperes with the negative pole during seven minutes. She came again on the 20th March, telling me that she had had less pain since and could walk better, and that her friends told her she was looking better. I gave her 150 negative for five minutes, which she bore well. On the 23rd she was menstruating, so I did not give her any electricity, but her belly was not at all tender to pressure, and the menstrual flow was more profuse than usual. On the 27th she came again, having ceased menstruating; instead of lasting fifteen days, as it did before treatment, it only lasted five days, but she lost more in the five days this time than she did in fifteen before—not more, however, than a woman should lose at a period. She measured 4 inches less around the waist. I gave her 150 positive for five minutes, the sound entering five centimetres. On the 29th March she measures only 27 inches around the waist, and she feels so much better that she thinks she will soon be able to return to work. I gave her 140 positive for five minutes.

March 31st.—She says she has a hollow at the pit of her stomach now, instead of a lump. I gave her 125 negative during five minutes, which she bore well, the sound entering five centimetres.

April 3rd.—Waist measurement steadily decreasing, and she is hardly at all sensitive over the abdomen. Gave her 100 negative for five minutes. *5th*—Gave her 100 negative during six minutes, which she bore easily.

This is as far as I have got with the case, and of course I am only in the middle of the treatment; but the result has been so striking, and her previous condition having been so well authenticated, and she seemed so willing to come here to show herself, where it is not always easy to bring them, I thought it would be interesting to the members to see one of the many cases of the kind I have at present under treatment.

Perforating Ulcer of the Stomach.—Dr. ARMSTRONG also showed a specimen of round ulcer of the stomach, remarkable for its large size, as well as the obscure previous history. The patient was a well-nourished, but anæmic, unmarried woman, aged 28, a nurse in the Western Hospital. For a year past she had complained of being out of sorts, at one time having well-marked left intercostal neuralgia affecting the seventh and eighth nerves of that side. She had also complained of burning pain at lower end of back, which was found to be due to a retroverted uterus, and which was relieved by the use of a suitable pessary. Her appetite had been poor, but she always denied suffering pain after eating, and had never vomited her food except once. For about a month or six weeks before the symptoms of perforation developed, she had nearly every day complained of severe abdominal pain, referred principally to the region of the umbilicus, and sometimes of pain in left iliac fossa. This was unaccompanied by corresponding pain on pressure. Her bowels moved every day, and the stools were of good color and formed, but not hard or dry. On Friday afternoon she suddenly took a severe chill, with severe pain referred at first to left iliac fossa. In a few hours symptoms of general peritonitis developed with vomiting of everything taken into the stomach. Death ensued forty-eight hours after the symptoms of perforation. At the autopsy there were the usual evidences of general suppurative peritonitis. The left fallopian tube was dilated to one inch in diameter, and contained pus. So far as could be made out, no rupture of tube had taken place. On the posterior wall of the lesser curvature of the stomach, a large round perforation was found, having a diameter of 1¼ inches. The edges were rounded and smooth. This is certainly a very unusually large opening.

Dr. PERRIGO said that the patient was under his care in the Western Hospital for some time; she then had paroxysmal intercostal neuralgia, coming on every afternoon. Small repeated doses of quinine had no effect, but large doses gave relief. There was no history of vomiting or indigestion.

Dr. BELL referred to a case recently shown by Dr. GEORGE ROSS. The stomach of a girl aged 19 had several ulcers; two were completely healed and some partially, one had perforated and caused death. During life there were no symptoms referable to gastric trouble. No history of vomiting or indigestion.

Renal Tuberculosis.—Dr. Lafleur exhibited the kidneys and bladder from a case of renal tuberculosis. The right kidney was much enlarged, nodular, and could be distinctly mapped out externally. Its capsule was thickened and adherent to the liver, ascending colon and duodenum. On section, was found to consist of a collection of small cavities filled with creamy pus and caseous detritus, all communicating with pelvis of kidney. Ureter was dilated and infiltrated with tubercular nodules. In left kidney there was a small caseating nodule at the apex of one of the pyramids, and the rest of the organ showed marked amyloid reaction. Ureter normal. Bladder was filled with pus, and its mucous membrane was ulcerated in several places and deeply pigmented. Vesiculæ seminales were normal. Epididymis of right testicle was tubercular. The lungs and liver contained miliary tubercles. The oldest tubercular deposit was found in some of the bronchial glands, which contained a gritty, mortar-like material.

Foreign Body in the Nose.—The patient was shown by Dr. Lapthorn Smith, who stated that he had exhibited a somewhat similar case seven or eight years ago, that of a child about two years old, which had been suffering for several months previous to his seeing it from a fœtid discharge from the nostril, which had been treated for catarrh. In that case the cause of the discharge was found to be a piece of wood much larger than could be forced into the child's nose, but which the child introduced in a dry and much smaller state. The present case was that of a girl 14 years old, who had been troubled with ozœna ever since she was 3 years of age, and the odor from which had become latterly so very unpleasant, that her parents were forced to keep her in a separate room from those occupied by the rest of the family. She had been treated for catarrh at several public institutions, but, probably owing to the fearful smell, none of the attendants had ever examined her nose carefully. Dr. Smith had himself hurriedly prescribed for her general health at the Montreal Dispensary some years ago, without examining her, as she was supposed to be suffering from the sequelæ of smallpox. But a few days ago she was brought to his office, when, on examining her nose with a speculum and probe, a hard, grey and glistening object was seen and felt. It was readily removed with a suitable pair of forceps, when it turned out to be a shoe button, which she must have introduced ten or twelve years ago, and which he showed to the Society. The button was incrusted with phosphates. There was a little bleeding from the surface of the cavity which it had hollowed out for itself in the nostril. Dr. Smith said that his object in showing this case was to emphasize the importance of making a local examination in every case of this kind, as, if this had been done in the first instance, years of discomfort would have been saved the patient. Although only a short time has elapsed since the button was removed, the ozœna has completely disappeared, and the ulcerated surface was almost entirely healed.

Seven Consecutive Successful Ovariotomies.—Dr. Trenholme exhibited cystic ovaries and enlarged tubes, removed last week from Miss G.G., a young woman aged 22, which makes the seventh operation performed since he was last at a meeting of the Society. The patient was of slight build, and suffered from a persistent menorrhagia since the menses began. There were at such times severe pelvic pains, and she was unable to perform her daily work, by which she had to obtain her living. On examination, finding both ovaries and tubes enlarged while the uterus was normal, any possible treatment except the removal of the appendages was excluded. The specimens now shown are much shrunken. The ovaries were as large as small hen's egg, and so densely adherent that they ruptured during their removal. The tubes were as large as a small finger, filled with blood, and so densely adherent that their removal was difficult. The opening into the abdominal cavity was about 2½ inches long, and closed with three silk worm-gut sutures; horse hair was used for superficial sutures. A few layers of antiseptic gauze held in place by two straps of adhesive plaster completed the abdominal toilet.

Case 2.—Miss S., aged 28; always suffered during menstrual period. Of late has had to use morphia to relieve the increasing distress. All her family having become insane, and fearing for her own sanity, she consulted me. On examination, found enlargement of both ovaries and a small fibroid, size of a plum, in the posterior wall, at the fundus of the uterus. Removed appendages in my usual way. Result, perfect recovery.

Case 3.—Mrs. W., aged 30, always suffered since menses began, but of late the sufferings are intolerable without opiates. Has been under various treatment, but without relief. Found both

ovaries cystic and right tube enlarged about one inch in diameter by 2½ long. Recovery from operation and her former sufferings good, but ulcers of rectum have retarded perfect restoration to health.

Case 4.—Mrs. R., aged 32, as a girl, was a terrible sufferer during the flow of the menses; has borne three children. After the first, a thrombus formed in right side of pelvis, which was opened after several months suffering; subsequently bore two children, although the sac refilled and escaped several times. During past summer she caught cold, which caused intense suffering. On examination, found a tumor size of fœtal head on right side of uterus and above the former cyst, though close to it. While operating, the walls of the cyst were so friable, that it was with difficulty that the thick tarry contents were prevented from entering the cavity of the abdomen. The operation was followed by a tedious convalescence, owing to the refilling of the old abscess, which had to be tapped several time. Eventually she made an excellent recovery, although the walls of the abscess are still tender, and form a small tumor.

Case 5.—Mrs. D., 22 years, mother of two children. History very like that of case 4. Sufferings are so severe during menstruation that she prefers death to life. On examination, found both ovaries enlarged, also left tube. Result of operation, perfect recovery and the acquirement of sexual pleasure, a thing never before enjoyed.

Case 6.—Mrs. S.; ovarian cyst, 18 lbs.; recovery perfect.

Case 7.—Mrs. C.; enlargement of both ovaries, left one behind the uterus. Diagnosis of suppurating cysts of ovaries. Operation was difficult on account of adhesions, which were very dense and universal. Both ovaries were about the size of hen's eggs and filled with putrid pus, which escaped into the peritoneal cavity. The rotten state of the cyst walls caused rupture with the slightest touch. A curious horn-shaped cyst sprang from the fimbria of the left ovary, back of the fundus uteri, and curling upward and forward over the uterus was attached by the point to the walls of the abdomen. It was about 1½ inches at base and 6 inches long, filled with clear fluid.

Electricity in Gynæcology.—Dr. LAPTHORN SMITH read the following paper on this subject:—

As all diseases of women may be attributed to disorders of the nerves of sensation, of motion, or of nutrition, three forms of electricity may be employed as remedial agents; and although the subject of electricity in gynæcology is too big a one to bring within the scope of a small paper, still I think I might briefly outline the various kinds of electricity used in gynæcology and the various diseases in which they are rationally indicated.

Disorders of sensation are the most numerous and, perhaps, the most important, because it is pain which most often brings a woman to consult us. In what exactly pain consists nobody knows, but this we do know, that when it depends on disordered innervation alone, we possess a certain remedy for it in the faradic current of tension, or from the long, fine wire. I have many times proved its efficacy in cases of ovarian neuralgia, and in some of them I believe that the necessity of oophorectomy has been done away with. On this point, Apostoli says: "The current of tension alone is very well borne by nearly all uteri, and in particular by those of hysterical patients; alone the current of tension, with a very great tolerability, and a much greater power of radiation than that of quantity, enjoys the remarkable quality of rapidly calming peri-uterine pain, and that, too, all the better, and in a manner all the more permanent, when it is employed in cases of neuralgia of an hysterical nature."

"In all neuralgias of the pelvis," he says, "whatever may be their origin, nature or severity, the element of pain can and always should be treated, most often successfully, by the faradic current, and always by the current of tension alone. It is harmless and efficacious only on condition that we conform ourselves to the following rules:—

1. Never to make the patient suffer, and never to apply a stronger intensity than she can bear.

2. Make the operations last long, and continue them until the appearance of a manifest sedation.

3. Make by means of the bipolar excitor an intra-uterine application whenever possible, or a vaginal one in other cases."

By these simple means, therefore, we can successfully treat a numerous class of cases, in many of whom the ovaries would have hitherto been removed, and that, too, without curing the pain, which was the very object of removing the healthy ovaries.

In the faradic current of quanity—that is, from the short, thick wire—we possess a rational treat-

ment for all diseases of the uterus, owing their origin, directly or indirectly, to relaxation or loss of tone of muscular fibre. This category includes all forms of flexions and versions, and prolapsus, as well as subinvolution and the pathological conditions resulting from it; for all displacements of the uterus (as may be seen by referring to this rough chart) are due to the organ being too heavy for its supports, or the supports being too weak to hold up the normal weight, or to a combination of the two causes in some cases. As far as flexions are concerned, it requires no argument to show that the uterus is a hollow muscular column, held upright on itself by its own tonicity, and that whenever the walls of that column become weak or relaxed, or whenever the superincumbent weight becomes increased, the column will bend, either forwards or backwards, according to certain principles. Also, it will be admitted by every one that relaxation of the muscular walls of the bloodvessels in the uterus will allow an increased quantity of blood to remain in it, and thereby increase its weight.

But it is when we come to talk about the muscle in the uterine supports that people look at us blankly as though they had never heard of such a thing. This unfortunate ignorance of such important structures is probably due to the habit we have fallen into of calling these supports ligaments, which conveys the idea to our mind of fibrous tissue. Others, again, have been brought up with the idea that the uterus was held in its place in the pelvis by means of the fold, of peritoneum, which in reality only cover the ligaments, and which are quite incapable of performing the functions which we know the ligaments of the uterus do perform. To those who do not see any muscular tissue on the uterine supports, it is folly to say that those supports can be strengthened by means of the faradic current, which has no beneficial action whatever on peritoneum or ligamentous tissue. I have not time now to argue this matter out, and I must assume for the moment that there is muscular tissue in these so-called uterine ligaments. Now, I have only to remind you that every time a muscle contracts, it developes, in consequence of its improved nutrition; the products of tissue waste being removed by the veins and lymphatics, and room being left for a fresh supply of arterial blood. With the interrupted current we can produce artificially many thousands of contractions at each séance, and in the course of a few weeks, treatment we may even bring about hypertrophy of the muscular tissue, in the perineum, vagina, and ligaments. You know that the strength of the backsmith's right arm is proverbial simply because he makes its muscles contract the most; and medical men engaged in administering faradism through their own bodies, *en route* to their patients, attest the fact that their arms become enormously increased in size thereby.

It is also generally admitted that faradism is an excellent remedy for chronic constipation, because it causes the muscular fibres in the intestine to contract and thereby develop. In fact, the faradic current of quantity does directly and at the very spot just what ergot, quinine and strychnine do indirectly, after being absorbed by the stomach and carried by the circulation to the affected parts.

While writing this I have just received a letter from a leading practitioner of Toronto, asking me if I could tell him what was meant by the quality current, a term employed in the writings of Engelman of St. Louis. The answer is that it is used o designate the current of tension, as opposed to the current of quantity; but I think it would be better to give the two latter more explicit terms, as both the current of tension and the current of quantity are currents of different qualities. This reminds me of another question which I am asked every day, viz.: Why won't the ordinary McIntosh faradic battery do for gynæcological work? Simply because it only contains one kind of induction coil; and if that coil is long and fine, it is not suitable for diseases characterized by relaxation of muscle. If, on the other hand, it is coarse, it is not only of no use, but positively hurtful in diseases characterized by pain. It is only on condition that the proper kind of current be given in the proper cases that we can hope to have satisfactory results.

You will naturally ask me what have been the results of the two faradic currents in my hands? In suitable cases eminently satisfactory; in unsuitable ones, disappointing. For instance, in cases of procidentia, due to increased weight of the uterus, the increased weight being due to areolar hyperplasia, the use of the faradic current alone will be disappointing, because it has not the power to cause absorption of fibrous tissue. It will, it is true, increase the strength of the supporting muscles, but in such cases something more is required, and that is to reduce the weight of the

hypertrophied organ. Fortunately we possess in the continuous current, especially the negative, the means of causing the reabsorption into the circulation of the plastic exudation. It is a question for investigation whether the pelvic muscles ever become so completely atrophied as to utterly fail to respond to the faradic stimulus. In that case, of course, it would be useless to employ it.

A brief outline of the following case might be of interest:—Mrs. R., aged about 70, came to my office in a pitiable condition. Her uterus was hanging outside of her body, and the cervix was lacerated and covered with star-shaped fissures and ulcerations. The organ was enlarged is every diameter, the sound entering nearly five inches, and it had a hard feeling to the touch. Her thighs were excoriated, and her clothing was stained with blood coming from the raw surface of the uterus, which stuck to them whenever she sat down. At times she was quite unable to go about. From the 1st to the 18th of September I gave her six applications of the coarse faradic wire in the vagina, with the only result that she felt and was observed to be much stronger, and she was able to go about more. From the 18th September to the 16th October I gave her an intra-uterine application of the coarse wire faradism, with the result that the sound enters at most 4½ inches. As the uterus still came out of the body, though not so much as before, I decided to try the continuous current, in order to improve the nutrition of the organ to such an extent as to make it return to a size and weight more nearly approaching the normal. In this hope I was not disappointed, for after giving her bi-weekly applications of the negative current of 100 milliamperes for five minutes each time, from the 16th October till the 27th November, I was enabled to make the following entries in my note-book:—

Nov. 6th.—Uterus rarely comes out now, and when it does, it goes back of its own accord when she sits down. *9th*—Excoriation on thighs all gone. *13th*—Uterus only been down once since. *16th*—Fissures on os completely healed. *20th*—Uterus remarkably soft to the touch. *23rd*—Sound enters only three and a half inches.

Dec. 1st.—Discharged, for the present, as the uterus has not been down since last time of coming.

I did not see her again till April, 1888, when I was called to attend her for paralysis. I took advantage of my visits to ascertain the condition of the womb. I found it still soft, small, and well up in the pelvic, and she stated that it had never given her any trouble since.

This is only one of many similar cases. My general experience has been that we can surely relieve those case of partial prolapsus, in which the patient complains of a dragging feeling in the back, and which I believe to be due to relaxation of the muscular tissues of the pelvis. Faradism alone is insufficient in those cases in which there is, in addition to relaxation of the supports, an increased weight of the organ to be supported, in which case the trophic action of the continuous current, preferably negative, will be necessary.

The continuous current will form the subject of another paper, but in the meantime I may say that the field for its use is daily enlarging, and, among many others, its employment in strictures is eminently satisfactory.

Stated Meeting, April 20th, 1888.

DR. TRENHOLME IN THE CHAIR.

Drs. J. A. Hutchinson, Brodeur and D. McG. Decow were elected members of the Society.

Multilocular Cyst.—Dr. TRENHOLME exhibited a large multilocular ovarian cyst, which he had removed from a woman aged 40. The operation was not one of unusual difficulty, and the patient was doing well. It had first been noticed eighteen months ago, and had grown very rapidly.

Pyelo-Nephritis; Infiltration of Urine with Sloughing of Urethra.—Dr. LAFLEUR exhibited specimens for Dr. Shepherd from a case of surgical kidney, caused by enlarged prostate. Patient, aged 67, complained of retention of urine, which was relieved by catheterization, and followed by infiltration of urine in perineum and scrotum, with formation of abscess between neck of bladder and rectum. Scrotum was œdematous and gangrenous. Through incision in perineum finger could be passed into a cavity about the size of a large walnut, between neck of the bladder and rectum, which contained some necrosed tissue. Catheter passed through urethra could be felt at posterior part of this cavity for about an inch, the urethra having completely sloughed away in this situation. The pelvis and ureter of the right kidney were dilated, and contained ammoniacal urine, but the organ appeared otherwise normal. The left kidney was enlarged, and its capsule was loosened in places. The pelvis and ureter were

moderately dilated, thickened and deeply pigmented indicating chronic inflammation, and contained very foul, thick, greenish-grey muco-pus. The apices of the pyramids projecting into calices of pelvis were necrosed, while the rest of the parenchyma was intensely inflamed, the pyramids being dark red with small yellowish areas, indicating formation of abscesses; in the cortex the same change was taking place, but not to such a marked degree. The walls of the bladder were much thickened, the mucous membrane deeply pigmented and roughened, while the cavity, which was contracted, contained a mixture of ammoniacal urine and dark green muco-pus. The prostate was enlarged, and friable on section. The immediate cause of death was croupous pneumonia affecting lower and middle lobes of right lung.

Concretio Pericardii. Dr. LAFLEUR also exhibited for Dr. Wilkins a heart, showing complete adhesion of parietal and visceral layers of the pericardium, from a patient who had suffered from severe attacks of acute rheumatism.

Suppurative Appendicitis with Pyæmic Abscesses of the Liver.—Dr. LAFLEUR exhibited specimens from the case, and reported that at the autopsy sinuses were found over the lower part of the abdomen, which converged more or less towards right iliac fossa. Pelvic cavity contained five ounces of thin, putrid fluid, with a few flakes of lymph, but the peritoneum was everywhere smooth and glistening. Appendix deeply pigmented and glued to tissues in iliac fossa by firm, inflammatory, fibrous tissue. At its midlle was a perforation a quarter of an inch in diameter. From this point sinuses diverged in three different directions. One sinus, which appeared to be the oldest, on account of the thickness of its walls and their intense slaty pigmentation, lay beneath the sheath of the psoas muscle, passing upwards and backwards as far as the ligamentum arcuatum internum, where it formed a cul-de-sac. A second sinus was traced inwards and downwards over the brim of the pelvis, into the loose cellular tissue around the bladder and rectum, opening externally in the perineum half way between the scrotum and the anus. The third sinus passed in a curved direction outwards to the abdominal wall, where it divided into several branches, running in the main parallel to Poupart's ligament, upwards towards the iliac crest and downwards into the scrotum. There was no abscess cavity in connection with appendix or cæcum. The liver was enlarged, and on the under surface of the right lobe was a fluctuating swelling the size of a large orange, which contained thick fœtid pus, and was traversed by bands of necrosed tissue. Another abscess cavity existed under the coronary ligament, and a third one, an inch and a half in diameter, was found on the upper surface of the right lobe, which was adherent to abdominal wall in that situation. The liver tissue around these cavities was studded with minute foci of suppuration, showing origin of the large abscess cavities from fusion of multiple lobular abscesses. There were no thrombi in the portal vein or in the vena cava and its main branches. The infection was probably conveyed to the liver from a small branch of the portal vein involved in inflammatory change about appendix or cæcum. The kidneys were anæmic, and showed slight fatty changes in tubules. Pericardium contained five ounces of slightly turbid, yellow serum, with a small amount of adherent lymph. There were no endocardial changes. The spleen was enlarged and soft. Brain and lungs were normal. The immediate cause of death was perforation of the appendix.

Dr. BELL gave the following history of the case: The patient, a very stout man, was admitted into the General Hospital in July, 1887, suffering from symptoms of perityphlitis. He was discharged apparently cured in a few weeks, but returned in December with various sinuses over the lower part of the abdomen and scrotum; all these sinuses led into the right iliac fossa, which contained much dense inflammatory tissue. These sinuses discharged a large amount of fœtid pus. Dr. Bell, under whose charge the patient was, opened up and scraped the sinuses and evacuated many pockets of pus, but could not find the course of the pus in the iliac fossa. The wounds were packed with iodoform gauze, and a dressing of washed gauze applied. The temperature, which had ranged from 100° to 103° F., became normal, and the patient gradually gained strength. Three weeks after he suddenly became maniacal. After this no dressings could be kept on, and the patient's condition gradually grew worse; the temperature became high and irregular, and two weeks later he died suddenly, apparently from collapse. He never recovered his sanity. There was no family history of insanity.

Dr. SHEPHERD thought that the direct cause

of death was abscess of the liver and pyæmia. The mode of origin of the sinuses from perforation of the appendix was the most interesting feature of the case. Even if a diagnosis could have been made early, the autopsy showed that treatment by abdominal section would not have been more effective. At the operation, owing to the fat in the abdominal walls, the sinuses could not be traced. He regarded the iodoform poisoning as one of the incidents of the case, but not as the cause of death.

In answer to Dr. RODDICK, Dr. BELL said that the temperature was decidedly septic at first, but after evacuation of the sinuses it fell to normal, and remained so for weeks. At the time of the operation, he was convinced that all the pus had not been evacuated.

Some Rare Forms of Extravasation of Urine.—Dr. BELL read a paper on this subject, which appeared in the May number of the *Canada Medical and Surgical Journal*.

Discussion.—Dr. FENWICK was with Dr. Bell at the operation for ovariotomy mentioned in the paper, and was greatly surprised to find the bladder so high up. Sometimes this accidental wounding of the bladder was unavoidable. He had himself once wounded a prolapsed bladder in a operation for hernia, but the patient ultimately made a good recovery. He had seen several cases of mania produced from the use of iodoform; the most recent case was that of a stout old gentleman, on whom he had operated for lateral lithotomy. Iodoform dressings were used, and the patient several days after became affected with mania, which lasted two weeks; he, however, recovered perfectly.

Dr. SHEPHERD said that the case of urinary infiltration, following wound of the bladder during the performance of an ovariotomy, was a very interesting one, owing to the probability of death having resulted from iodoform poisoning. He had several cases of mania following operations, in all of which iodoform had been used, though only in small quantities, and he was in doubt whether to attribute the mania to iodoform, the anæsthetic, or to traumatism. In all cases there was an hereditary taint. Only one died,— a case of sequestrotomy of the femur in a man aged 25. Acute mania came on in five days after the operation; only about one drachm of iodoform had been used. In another case, a pericæcal abscess in a man aged 40, acute mania came on the second day and lasted one month. The patient ultimately recovered. A small amount of iodoform was used, and only at the operation. Several of the patient's immediate relatives had died insane, and the patient himself was subject to fits of ungovernable temper. The third was a case of amputation of the breast in a woman aged 60. A mild form of insanity followed from the anæsthetic, and the woman never completely recovered up to the time of her death, a couple of years after, from cerebral hemorrhage.

Dr. RODDICK was very much interested in the cases of iodoform poisoning. He believed it is frequently due to idiosyncrasy. He had seen one case follow excision of the breast where iodoform had been used. There was a history of insanity in the family. The mania lasted ten days. He thought iodoform should be used with more care. Large quantities are unnecessary; he had found it to produce severe eczematous irritation of the skin. He now uses carbonate of bismuth in preference to iodoform, as it is less irritating. He also sometimes uses boric acid and naphthalin. Lately he had been using hydronaphthol with benefit. It is odorless and non-irritating. Referring to the case of infiltration of urine, he thought the explanation of the case by supposing perforation of the prostate and posterior layer of the triangular ligament was not necessary, as it is well known that when the membranous portion of the urethra is perforated the urine escapes behind the anterior layer of the triangular ligament—the tendency of the fluid is to infiltrate backwards towards the rectum and not to come forward. If the posterior ligament be perforated, then the urine extends behind the pelvic fascia into the pelvis, and is generally fatal.

Dr. STEWART had seen Dr. Bell's first case, and regarded it as a case of iodoform poisoning. It is well known that in cases of mania from any cause, the mania remains long after the removal of the cause. Cases in which there is much adipose tissue are more liable to poisoning, because the fat decomposes the iodoform in contact with it.

Dr. ARMSTRONG asked if it was necessary to use iodoform at all. Recent experiments have demonstrated that it is devoid of germicidal properties. He thought its use was unnecessary in the treatment of sinuses.

Dr. TRENHOLME, referring to the case mentioned by Dr. Bell when the bladder was wounded, said he thought the bladder should never be emptied before an operation, as it is much more easily avoided when containing fluid. If it be accidentally wounded, then sutures of shoemaker's thread or silk should be used, not catgut, which is very unreliable.

Progress of Science.

IPECACUANHA SPRAY IN CHRONIC BRONCHITIS.

WILLLIAM MURREL, M. D.

The ipecacuanha spray was originally introduced as a remedy for chronic bronchitis and other diseases of the throat and respiratory organs, in consequence of the reputed success attending the use of a nostrum, both in London and Paris, by an irregular practitioner. It was difficult to obtain any clue to the composition of the secret remedy, as apparently the propietor varied the constituents from time to time, in order to puzzle the analysts and escape detection. A number of preliminary trials were made, which speedily demonstrated that even if the specific were not ipecacuanha wine, that very useful drug entered largely into its composition, and that locally applied in the form of a spray it was capable of affording relief to congested and irritated bronchial mucous membranes. Sometimes the ipecacuanha wine, pure, or diluted with an equal quantity of water, used with a small steam vaporizer, but more commonly the ordinary hand-ball spray apparatus, such as is employed for the production of local anæsthesia, was preferred. A solution in sprit made of the same strength as the wine was found equally efficacious. After a few visits the patient was usually taught how to use the apparatus himself. The following may be regarded as typical of a number of cases which have been under treatment at the Westminster Hospital during the last six months. David J., æt. 53, a cigar maker by trade, has had a cough in the winter for 12 years or more. There is not much dust in his work, and he is not exposed to wet or cold, but he has travelled a good deal, and has known what it is to rough it. The cough is troublesome, but it is not paroxysmal. There are no bad attacks of cough, but there is a good deal of hacking, and this keeps him awake at night. There is very little expectoration, certainly not enough to give him any trouble. He has had no hæmoptysis, and has not lost flesh. On examining the chest, the percussion note is found to be normal. Small râles are detected at the left apex in front, and at the right base posteriorly. The patient was given 15 cc. of ipecacuanha wine, with an equal quantity of water, by a steam spray apparatus, and this was repeated on three successive days, the dose being gradually increased to 30 cc. On the fourth day the hand-ball spray was used, and at the expiration of the week the patient reported that his cough had entirely left him, and that he was practically well. On examining the chest it was found that the rhonchus had disappeared. [Five other cases are given in detail, and the writer concludes]: Most successful results are obtained from the employment of the ipecacuanha spray in cases of chronic bronchitis and bronchial catarrh. In fibroid phthisis there is often a marked improvement, even when no constitutional treatment is adopted. A single inhalation will sometimes restore the voice in case of hoarseness due to congestion of the vocal cords. The spray must be warm, and the patient should not go out for some minutes after inhaling. Care should be taken to see that the spray really enters the chest, and is not stopped by the arching of the tongue against the wall of the mouth. The best results are obtained by using the spray for about ten minutes three or four times a day. In the majority of cases of winter cough relief will be obtained in ten days.—*Med. Press*, Lond., April 25.

TREATMENT OF CHRONIC BRONCHITIS IN CHILDREN.

By THOMAS J. MAYS, M.D., Professor of Diseases of the Chest in the Philadelphia Polyclinic.

Med. News:—Quite an extended experience in the treatment of these cases teaches us that persistent counter-irritation is of the first consideration. If there is much impediment to the ingress and egress of air, or, in other words, if there is much dyspnœa, the child is at once placed in bed, the chest is enveloped with a hot flax-seed meal poultice (covered well with oiled muslin), which must be changed every three hours. In most cases, however, it is not necessary to order the child to bed, and counter-irritation is produced by a mild croton oil liniment. Croton oil and sweet oil, well mixed in proportion of one to two parts of the former to six of the latter, is will rubbed into the skin of the child's chest—in front, under the arms, and between the shoulder blades not with a flannel or cloth, but with the mother's or nurse's fingers, twice a day, and then the chest is well covered with a layer of cotton wool. It is important that as much as ten or fifteen minutes be spent in rubbing the liniment well into the skin, after which the hands must be thoroughly washed. In the course of four or five hours a red blush of the skin will appear, ending in fine, yellow-pointed pustules. Simultaneous with this eruption the cough becomes easier, the expectoration more free, the dyspnœa less—in fact, the most remarkable change will be brought about in the little patient.

Our attention was first called to the usefulness of this application by Dr. Park, in a short contribution to the London *Practitioner* for March, 1882 (p. 170), and although he principally recommends it in acute bronchitis, we can say that we have found it as useful in the form of bronchitis here described as he did in the acute form of the disease. Indeed, we may add that we have also given it a fair trial in acute catarrhal affections of the chest in children, and never had any reason to feel disappointed with its action.

The interval treatment must be directed toward a stimulation of the bronchial mucous membrane, and toward a recovery of the appetite. The former will be attained in a great measure by the following combination :

℞. Ammonia muriat., ... ʒ j
Ex. euphorbia pil. fld.....
Tinc. digitalis, aa.....f ʒ iij
Atropiæ sulph..... .. gr. $\frac{1}{60}$
Chloroformi..... .....gtt. xij
Syr. tolu, ...
Syr. picis liquid., aa .....q.s.f ℥ j
Aquæ, ad.....q.s. f ℥ iv M.

Sig.—One teaspoonful every three hours.

For the purpose of aiding digestion, and as a general tonic, the following will be found useful :

℞. Acid. phosphorici dil.,
Acid. nitro-muriatic. dil.,
Acid. sulphuric. aromat.,
Tinct. ferri chloridi, aa f ʒ ss M.

Sig.—Thirty drops in sweetened water after each meal, three times a day.

The diet should be exceedingly liberal, although no food must be allowed which is likely to disagree. Our main reliance must be placed on rich milk, soup, oatmeal, beef, mutton and other kinds of nutritious food. At no time during the treatment is it necessary to confine the child within doors during pleasant weather. Indeed, out-door exercises should be encouraged as much as possible. —*Epitome of Practical Medicine and Surgery.*

CHLORIDE OF SODIUM IN THE SICKNESS OF PREGNANCY.

Dr. Greene states that he has recently had two very severe cases of sickness during pregnancy, The first patient had been under several physicians, who had tried all kinds of remedies, but nothing stopped the sickness. When seen by the author she was in the seventh month of pregnancy, and very much reduced. Before resorting to the induction of premature labor, it was decided to try the effect of small doses of chloride of sodium (common salt) in chloroform-water. It was given in 5-grain doses in one ounce of chloroform-water. After the first dose the sickness was lessened, and by the time six doses had been taken it had entirely ceased. It was found necessary to continue the medicine three times a day up to the time of delivery. The patient had a good labor, and made a good recovery. In another case a similar treatment was followed by the same result. The action of this drug seems to be accounted for by its strong antacid; yet soda, potash, and ammonia gave no beneficial results. The author suggests to call the remedy in prescribing by its chemical name, as some patients might despise it when called common salt.—*Medical Press.*

MECHANICAL TREATMENT OF WHOOPING COUGH.

Goldsmith gives a practical method by which he has had unexpected success. He treats this disease mechanically. Believing that the nose and the naso-pharynx constitute the seat of the contagion, he injects a solution of salicylic acid (1 to 1000), or corrosive sublimate (1 to 10,000), into the nose, making the injection every two hours, and effected in this way a complete disinfection of the nose and naso-pharynx. He only uses the injection in the day time (six times), the next day only four times, and in most cases the whooping-cough disappears by this treatment. Should another attack appear in a few days, it would only be necessary to make a few more injections. Goldsmith declares that whooping cough in the first stage will certainly disappear in the short time state under the above-mentioned treatment.—*New-York Medical Times*, April, 1888.

TO DISGUISE THE ODOR OF IODOFORM.

Dr. Andrew Fraydon communicates the following item to the *Medical News* of recent date :—

After a large experience in the use of iodoform in Jefferson College Hospital and elsewhere, I have found the following formula to be very satisfactory and to mask the odor thoroughly :—

℞ Balsam. canadensis,
Iodoform, aa ʒ j
Vaseline, ℥ vj.

M.—Solve.

SUCCESSFUL EXCISION OF A TUMOR OF THE SPINAL CORD.

Surgery is a science, or perhaps we should say a fine art, which will tolerate no limits to its domain. It has of late taken up the invasion of the brain in earnest; it has just made its first successful dash at a tumor in the spinal cord. Last Tuesday evening, before the meeting of the Medical and Chirurgical Society, a private patient of Dr. Gowers and Mr. Victor Horsley very generously allowed the Fellows and visitors of that Society the opportunity of seeing all that had been

done for the improvement of his condition. He had spent about three years in severe pain, which was most intense just below and inside the angle of the left scapula, and was accompanied by absolute loss of motion and sensation of the body and limbs below that level. The upper border of the anæsthesia was distinctly in the region of the fifth intercostal nerve on the left side, on the right it was less accurately defined, but did not extend higher. All the symptoms agreed with those of tumors of the spinal cord, and the intense pain afforded ample justification for making an attempt to excise the tumor. Mr. Victor Horsley accordingly removed the spines and parts of the laminæ of the fifth and fourth dorsal vertebræ; but not until the third vertebra had been similarly treated did the tumor come into sight. It was a small oval myxoma compressing and making a deep impression on the left side of the spinal cord below the third vertebra. It was easily shelled out, and under careful antiseptic treatment the temperature did not rise more than 1° F. The wound healed rapidly, except at the uppermost point, where a drain had been left in by which a little cerebro spinal fluid flowed away very slowly. For three or four weeks the former acute pain did not lessen, and even at times seemed more agonizing; but after that it gradually and intermittently decreased, and now, after seven months, is entirely gone; the sensation and motion of the body and legs are almost completely restored. This is, we believe, the first times that such an operation had been attempted, and we must most heartily congratulate both the patient and his advisers on the triumphant character of its success. However far and however quickly surgery may advance, it will long be a memorable day when it gained its first victory on so new a field and over so formidable an enemy.—*British Medical Journal*, Jan. 28, 1888.

PERMANGANATE OF POTASH IN DIPHTHERIA.

In a communication in the *Brooklyn Medical Journal*, May, 1888, Dr. L. D. Mason says that a solution of permanganate of potash, used in the form of a spray though the atomiser, has gives him more satisfaction and better results than any other drug so used. A stock solution is prepared of potassium permanganate, ʒ ij to distilled water f ʒ iij, or grs. v to f ʒ j; one fluid drachm of the solution is added to about f ʒ jss or f ʒ ij of water, the average capacity of the atomizer bottle. It is then ready for use as a spray, in the manner already indicated. The first notable effect is the almost immediate arrest of the fetor exhaled by the patient; and when once this is corrected and the disinfection properly kept up, it will not recur during the treatment. By this means, he says, we rapidly simplify and reduce to an innocuous product the diphtheritic exudate; the self-poisoning that has been in progress is arrested or modified. The danger of the patient to himself, if we can so express it, and to others also, is averted, a downward tendency is arrested, and the chances of recovery greatly enhanced.

An occasional mouth-wash or gargle can, he says, be used between the spraying, if not contra-indicated. If used, it should be prepared with hot water, a weaker solution of potassium permanganate will answer. Fluid nourishment, taken hot if possible, will have a good local effect. All cloths. etc., on which secretions are caught, should be frequently burned, their places being supplied by fresh clean pieces. Old and small pieces of linen are preferable to larger cloths or handkerchiefs. The hands and face of the patient should be kept clean, using bay rum or alcohol and water. In a word, he advises that a perfect antiseptic condition of the patient and his surroundings should be secured and maintained. His experience with potassium permanganate was, he says, first a surgical one, as a deodorizer and mild stimulant in the cleansing of foul ulcers and sloughing tissues; secondly, in puerperal septicæmia, as an intra-uterine douche; in scarlatina anginosa, with putrid sore throat, and the so-called "snotty nose" complication and secondary glandular infiltration; and, finally, in diphtheria; and in none of these conditions has it disappointed him as to its antibromic, and antiseptic properties. Used in the form of a spray he regards it as perfectly safe: "We can use it freely. We will not poison our patient. We cannot so confidently speak of the possible effects of other drugs used for purposes of disinfection; indeed poisonous, if not fatal, effects have been traced to some that have been so used." He advises that the use of the spray should be continued until the last vestige of the diphtheritic exudate has disappeared. The frequency of its use will depend on the amount of exudation present, and the stage of the disease. As a rule, the absolute control of the fetor is the best guide.

THE EFFICACY OF LARGE DOSES OF ARSENIC IN CHOREA.

The curative property of arsenic in certain forms of chorea is well attested by numerous unimpeachable observations. It is equally certain, however, that arsenic does not always cure. Dr. James Sawyer in an article, published in *The Birmingham Medical Review*, maintains that when arsenic fails to manifest its ordinary therapeutic efficacy, it is because the drug is not administered in the right way. Properly exhibited, he regards its action as little less than specific. According to him, in order to get the best effects of arsenic in chorea, the remedy must be employed in large and increasing doses. The medicine may be safely "pushed," until irritative vomiting is excited As with other drugs, some manifestation of physiological action coincides with the direct therapeutical effect of the remedy. It may be remarked

in this connection, however, that irritative vomiting belongs rather so the pathological than to the physiological effects of arsenic, a fact which Dr. Sawyer's enthusiasm for this remedy may have caused him to overlook.

The author describes a typical illustrative case as follows: "A little girl, ten years old, weakly and neurotic, has subacute, general chorea. I give her five minims of Fowler's solution of arsenious acid, in an ounce of water, thrice daily. In three days, the dose increased to ten minims; in three days more, to fifteen, in three days more, to twenty, and so on, until she is taking thirty-five minims of the solution, or a little more than a fourth of a grain of arsenious acid, thrice daily. From the commencement of the treatment, the choreic movements gradually subside in severity, in frequency and in extent of distribution, and when the large dose of more than half a drachm of Fowler's solution is attained, the movements entirely cease, and a little vomiting and stomach-ache warn us that we have reached the earlier physiological manifestations of our remedy. We then withdraw the drug altogether for two days. Afterward, for a few days, we give a reduced dose, ten or fifteen minims of the solution; then the remedy is finally discontinued. The child remains well. After a fortnight's further observation, she is dismissed from our care, cured."

Perhaps the author claims too much for his favorite remedy. But it may be well, in suitable cases, where moderate doses of arsenic have failed, to test the therapeutic efficacy of the drug in the larger doses employed by Sawyer.—*Medical Record*, April 14, 1888.

TREATMENT OF RECTAL PAIN WITH CONIUM.

Dr. W. Whitla, Physician to the Royal Hospital, and Consulting Physician to the Ulster Hospital, Belfast, in a communication to the *Practitioner*, April, 1888, says: The object of this brief paper is to bring under notice the value of hemlock as a local anæsthetic in painful affections of the rectum and anus. In pruritus ani, especially when associated with or caused by hæmorrhoids, or fissures about the anus or in the lower part of the rectum, the physician or surgeon often finds much difficulty in giving relief. The pain and annoyance caused by a minute fissure is very often uninfluenced by cocaine, even when used as a strong solution, and if relief should follow it is seldom complete, and is always of such very short duration that the patient will generally discontinue its use, preferring the misery of his ailment to the exacerbation of suffering caused by the application of the remedy. Morphine, carbolic acid, creasote, belladonna, and the usual array of local sedatives, have been found in the hands of most observers to give very uncertain results in painful conditions of this region of the body. It will be perhaps the experience of most that they have more frequently aggravated than relieved. Their application I have noticed, when used to allay the pain of an inflamed pile, has sometimes added a more distressing symptom, namely, itching.

It is a long time since conium has been recommended and used as a local anæsthetic; I had tried it when other remedies had failed, and with only such success as did not tempt me to persevere, in some cases the patients asserting that their symptoms were aggravated. About a year ago I noticed somewhere in our current medical literature very satisfactory reports of this drug from an American source, but I regret that I connot recall the name of the physician or the journal. Having studied the action of conium some years ago on the endings of the sensory nerves, by applying a strong ointment made with the extract to ulcerated surfaces, and painful excoriations and superficial neuralgias, I was led to believe that it had little or no influence upon the sensory terminals. Discovering, however, that the extract of the *British Pharmacopœia* is a most unreliable, and generally almose inert preparation, I determined to try the effects of the *Succus*. Accordingly I have had an ointment prepared in the following manner:—Two ounces of the pharmacopœial juice are placed in a small evaporating dish, and permitted to evaporate slowly at a heat under 150° F., till the bulk is reduced to about one and a half or two drams. This can be done by placing the dish on the top of an ordinary domestic hot-water cistern for twenty-four or forty-eight hours. The syrupy liquid is then carefully triturated with as much lanolin as will make the weight up to one ounce; the result is a perfectly smooth adhesive ointment of a light brown or dark fawn color, and stable.

Happening to have several rectal cases in which severe pain and torturing pruritus were prominent features, the ointment was carefully applied. One was a case of multiple small fissures accompanied with intolerable itching; another was associated with severe tenesmus and excoriations from the pus flowing from an iliac abscess bursting through the levator ani muscle and penetrating the rectal walls; another was complicated by a bleeding villous growth. These with two cases of hæmorrhoids, one of which had an ulcerated surface, were so markedly and speedily relieved by the conium ointment after nearly every known remedy had failed, that I was surprised at the result.

In a considerable number of cases during the last year the same highly gratifying success was achieved by this remedy, whilst I cannot recollect a single instance where the ointment caused inconvenience. It should be freely smeared *inside* the sphincter, and owing to its adhesive quality can be carried a considerable distance up the rectum by the introduction of the fore-finger of the patient. I have never noticed after its use the serious drawback which follows the prolonged application of every other greasy application to this region, namely, a tender, sodden, or raw state of the skin

about the margin of the anus. The ointment appears to me to paralyze the endings of the *motor* nerves distributed to the fine muscular layer under the surface of the mucous membrane; the reflex twitchings of the layer keep up the perpetual pain uneasiness in diseases of the rectum and anus associated with abrasions, ulcerations, or fissures. At the same time it undoubtedly paralyzes the sensory filaments. I have obtained relief from its use in vaginismus and some painful conditions of the male urethra, and find it a good lubricant for the sound or catheter.

To the ointment prepared according to the above formula there may be added 10 or 12 grains of the persulphate of iron as recommended by Mr. Cripps in fissure. From carefully watching the results of this combination of conium with iron, I am seen a fissure heal completely under its use. In acute inflammation of hæmorroidalh growths associated with swelling and painful thobbing, some relief may be obtained by the free application of the conium ointment without iron, but it is in those exquisitely painful fissures or conditions in which there is a loss of substance in the mucous surface, that this remedy will be found to give more relief than any other drug.

NEW METHOD OF APPLYING TAXIS.

Mr. G. Jameson, Resident Surgeon of the Medical College Hospital, Calcutta, in a letter to the *British Med. Journal*, April 28, 1888, says: A few days ago a native presented himself at the dispensary of this hospital with a large right scrotal hernia, which had been down for some months. The man was placed on his back, and the tumor manipulated. The coverings were fairly tense. Before attempting reduction, I casually asked the patient if the tumor ever got smaller. He replied "Yes," and proceded to give me a demonstration in taxis which I had not previously heard of. Lifting up the tumor with his left hand, he placed his right thigh on his abdomen, then crossed it over to the left side, catching the tumor between the pubes and thigh, then applying pressure. The hernia disappeared with a gurgle and a snap before I had time to call the attention of the students to this novel procedure. The reduction was complete.

ANTIPYRIN IN THE TREATMENT OF SEMINAL EMISSIONS.

The older remedies for this affection, camphor and lupulin, have very properly been abandoned. Kurschmann says that the sedative action of lupulin on the genital organs is far from demonstrated, and the employment of camphor is not more reliable, although Zeissl, Purjesz and others consider it the best remedy in this affection. Nux vomica, arsenic and atropine have also been recommended, while Diday prefers the bromides of potassium and sodium to all other remedies. He recommends from thirty to eighty grains of the bromide of potassium to be taken on retiring. But these large doses of bromide will produce acne, and are also liable to induce mental enfeeblement. In order to avoid the dangers of bromides, Thor, of Bucharest, has been experimenting with antipyrin in the treatment of these affections. He advises the patient to take from seven to fifteen grains of the drug on retiring. In seventeen cases, he has completely cured the complaint, without any unpleasant consequences. According to Beart, antipyrin is useful in neurasthenia of the sexual organs, but in these cases from 1 to two grains a day should be given.—*Revista de Cincias Medicas.*

AN INHALATION FOR PHTHISIS.

In the *Rev. du Therapeutique* for December 1, 1887, Filleau and Petit give the following formula for inhalation in phthisis:

℞	Carbolic Acid.....	gr. 30
	Essent. Terebinth.....	3 12½
	Essent. Picis.....	3 5
	Eucalyptol.....	3 7½
	Chloroform.....	gtt. 5

M. S.—To be inhaled four to six times daily, for five minutes at each sitting.

MARSON'S TEST FOR SUGAR IN THE URINE.

Dissolve two grains of ferrous sulphate in about 150 minims of the urine, add five grains of caustic potassa, and boil. A dark green precipitate forms if sugar is present, and the supernatant liquid is reddish brown or black, according to the amount of sugar. When sugar is absent, the precipitate is greenish brown in color, and the liquid is colorless.—*London Medical Recorder, Feb. 20th.*

It may not be generally known among physicians that the bromide of lithium is almost a specific for muscular rheumatism.—*Bartholow.*

A FUMIGATION FOR ASTHMA.

Sawyer (Birmingham Med. Rev.", "Lyon Méd.") recommends the following as having afforded the best results that he has observed among those of a great number of inhalants:

Potassium nitrate, } each, 2 parts
Powdered aniseed, }
Powdered stramonium leaves, 4 "

A thimbleful of the mixture, fashioned into a little cone, is placed on a plate and lighted at the top.—*N. Y. Medical Journal.*

CREASOTE IN PHTHISIS.

Dr. Peter Kaatzer, of Rehburg, strongly recommends in the *Berliner Clinische Wochenschechrift*, March 12, 1888, the administration of creasote in the treatment of phthisis. After trying various formulæ he settles upon the following as the best:

R Creasoti purissimi.....2 parts
Alcoholis... 30
Tr. gentianæ,
Ext. caffeæ..... ....aa..10 "
Aquæ destillatæ..... .....100 "

M. Sig.—Shake well and take a tablespoonful in half a glass of milk twice daily.—*Epitome of Pract. Med. and Surgery.*

TO REMOVE FRECKLES.

℞ Hydr. præcip. albi, 5 parts;
Bismuthi subnitrici, 5 parts;
Ungt. glycerini, 20 parts.

M. Apply to freckles every second or third day, but not more frequently.—*Memorabilien.*

SALICYLIC ACID IN SKIN DISEASES.

Dr. Besnier, in a clinic reported in the *Journal de Méd. et de Chir. Prat.*, April, 1888, recommends salicylic acid in the following skin diseases:

In pityriasis versicolor, the affected parts should be bathed every evening with hot water and soap. The following ointment should then be applied:

Acidi salicylici.....gr. xlv
Sulph. præcip.....gr. ccxxv
Vaselini..... .... ℥ iij

The bathing and the application of the ointment should be renewed every evening; recovery usually occurs in about fifteen days.

Salicylic acid will also, he says, act well in senile pruritus, that is to say in the violent itching occurring in old people, unaccompanied with senile retrograde changes in the skin. In these cases, besides starch baths, the author advises that every evening the whole body should be bathed with a sponge dipped in very hot water (at about 104°), or with water containing a teaspoonful of the following liquid:

Aromatic vinegar..... .....f ℥ viij
Carbolic acid..... .....gr. lxxv

The body should then be covered with the following powder, applied with slight friction with the hand:

Starch..... ℥ iij
Salicylate of bismuth.....gr. cl

The salicylate of bismuth may be replaced by salicylic acid. Finally, it may be employed with advantage in acne with comedones. The following ointment may be used every evening for eight days:

℞ Salicylic acid..... .....gr. xxx
Precipitated sulphur
Potash soap.....aa ℥ jss

At the end of eight days some emollient application is made, and a great number of comedones will be found to have been expelled.—*Revue Médicale*, April, 1888.

PRELIMINARY TREATMENT OF PSORIASIS.

To remove the scales which occur in psoriasis, and thus increase the efficiency of remedial agents to be subsequently applied, Dr. Alf. Stocquart recommends (*Archives de Médecine et de Chirurgie Pratiques*) the following:

R Ammon. Carbonat..... 2 parts.
Lanolini puriss ..... 5 parts.
Cerat. Simplicis.....10 parts.

M.

This is to be applied twice daily, and is neither irritating nor painful. It leaves a clean, smooth surface, and its chief value lies in the fact that it is cheap.

LACTIC ACID IN DIARRHŒA.

M. Hayem at the *Soc. des Hôp.* stated that in diarrhœa, especially the green diarrhœa of children, he had found a teaspoonful of a two per cent., solution of lactic acid, every hour, efficient. In adults when the flux was chonic and accompanied with dyspepsia, a rapid cure was effected by three tablespoonfuls of the same solution. Where the diarrhœa was bilious and acid, he ordered large doses of bicarbonate of soda.

THE CANADA MEDICAL RECORD

A Monthly Journal of Medicine and Surgery.

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MONTREAL, JUNE, 1888.

We owe an apology to our readers for being a number behind in getting the Journal into their hands. Owing to an unusual rush of work about the spring of the year, our publishers were unable to overtake it, and once behind, it is a more difficult task than one would imagine to catch up again. This we have now, however, every prospect of doing, having added some young blood to our editorial staff; the next few num-

bers will succeed each other every two or three weeks.

We are especially anxious to encourage our readers in all parts of the world to communicate to us anything of interest which may come under their medical observation ; we shall also be happy to make room in our columns for letters of inquiry on any topic in which the Profession is interested, and we will be glad to publish the answers which others of our readers may send in. Our object is to save from oblivion the immense amount of knowledge, born of experience, which must be lying in the possession of our thousand readers, and which might otherwise die with them.

To begin with, we would like those of them who have kept records of their midwifery practice to give us an honest account of the percentage of deaths, and the cause of death in fatal cases, and whether the death rate has been less during the last few years?

We take great pleasure in calling the attention of our readers to the Meeting of the Canada Medical Association to be held at Ottawa on the 12th, 13th, and 14th September. Apart from the fact that this year the Meeting is to be held in a remarkably central and accessible location, and, moreover, that it promises to be unusually interesting, there is another reason why every member of the Profession should be willing to made a temporary sacrifice to be present. That is the advantage it confers upon us to hear in two or three days the result of the life-long experience of our elder brethren. Our patients may grumble somewhat at our absence, but in their hearts they are far seeing enough to know that in the end they are the ones to benefit by the increased knowledge we there acquire.

Indeed, it is a well known fact that in the city here, where there are nearly two hundred competitors or more in the professional struggle, no one loses any of his practice by devoting a certain part of every year to study, either in the large American cities or abroad. In most cases we find shortly after our return that our practice has largely increased. Besides this, even the most humble among us has observed something in the course of his experience, which might be useful to the Profession, and which he is morally bound to communicate. There can be no better opportunity for doing this than at the reunion of the whole Profession from every part of Canada. It might be objected that if every one attended these meetings and read a paper at them, there would not be sufficient time for them all. But this difficulty could be easily overcome by making the papers more concise than they sometimes are. We, therefore, reiterate our opinion that the time spent at the Medical Society and at the Association will not be lost, but will, like the golden wheat the farmer buries in the ground, before long bring a rich harvest in return ; and we express the hope that there will be a large attendance of the rank and file of the Profession, at the Meeting this year in Ottawa. By applying early to Dr. Bell, General Secretary, Beaver Hall hill, Montreal, arrangements can be made for greatly reduced rates for medical men and their wives.

PROVINCIAL MEDICAL BOARD.

The Semi-Annual Meeting of the Provincial Medical Board of the Province of Quebec was held in the City of Montreal, on Wednesday, the 9th May, 1888, Dr. W. H. Hingston, President, in the Chair.

The report of the examiners for admission to the study of Medicine was read. Forty-six candidates had passed. Thirty-two were rejected upon certain subjects, and nine were totally rejected on all subjects.

It was moved by Dr. Lachapelle, seconded by Dr. Lemieux. That all candidates for license, who have passed the preliminary examination in any other province than that of Quebec, shall be obliged to sign a solemn declaration that such certificates were obtained in compliance with the requirements of such provinces, and not for the purpose of evading the law of the Province of Quebec.

An amendment was moved by Dr. T. Larue, seconded by Dr. Paré, That the Provincial Medical Board cannot, according to its by-laws, accept the certificate from any other province of the Dominion, for the preliminary examination of those who study Medicine in the Province of Quebec.

A sub-amendment was moved by Dr. Kennedy, seconded by Dr. Parke, That certificates for matriculation in Medicine, registered by the Ontario Council, be accepted for the present as heretofore, and that a committee be named to examine into the nature of the certificates, and

to report at the next meeting of the Board.

Both the amendments and the main motion were lost on division. Dr. Lachapelle then resigned from the Committee on Qualifications, and was replaced by Dr. Paré.

At the afternoon session, the reports from the assessors of the Universities of Laval, McGill, Victoria and Bishop's Colleges were adopted.

A duplicate license was granted to Dr. Alleyn, of New Orleans, formerly of Quebec, the original having been accidentally destroyed by fire.

Dr. Kennedy, for the Committee on Qualifications, reported that the following gentlemen were entitled to the license:

Victoria University.—Henri Ducharme, Jos. Beaulme, Victor Bourgeault, E. A. Laferrière, Hyacinthe Bastien, L. A. Beaudry, J. C. Gadoury, J. A. Marcotte, J. E. Brault, E. E. Laurent, L. C. Bussière, Jos. Barolet, J. M. Picotte, J. A. Pomminville, C. T. Morel de Ladurantaye, J. T. Moreau, J. A. Paré, L. Leblanc, Jos. Thériault, Chas. F. Clerk.

Bishop's University—V. J. Groulx.

Laval University, Montreal.—E. A. René de Cotret, Charles Marcil, Arthur J. Ricard.

McGill University.—E. H. P. Blackader, E. L. Quirk, F. G. Finley, W. G. Stewart, J. H. Bell, A. W. Haldimand, C. W. Hæntschell, W. W. Chalmers, R. Marr Kincaid.

The candidates were sworn and the licenses granted.

Dr. Kennedy then submitted the names of a number of candidates having the degree of M.D., who have passed their preliminary examination in Ontario, Manitoba, or New Brunswick.

Moved by Dr. Guay, seconded by Dr. Rousseau, That the question of admission to the study of Medicine be reconsidered.

The motion, on division, received a majority of votes, but the President ruled that a two-thirds vote was always required for reconsideration.

Moved by Dr. Grandbois, seconded by Dr. Howard, That in future the license shall be refused to those candidates who, belonging to this Province, have endeavored to evade the law of the Province by passing their preliminary examination in one of the other provinces, and that the candidates now before the Board, having such certificates from other provinces, be required to sign a solemn declaration that they have obtained such certificates in the regular course and not with any intention of evading the existing law.

Moved in amendment by Dr. Dagenais, seconded by Dr. Ladouceur, That, in future, the Board grant no license to candidates not possessing the certificate of preliminary examination from this Board, with the exception of the cases provided for by the law.

Amendment lost and main motion carried.

The following graduates signed the above declaration before Dr. Leprohon, J. P., were sworn, and received the license:

Victoria University—Thos. Ennis, Félix Coran, Paul Royal and U. A. Dorais.

Bishop's University—Frederick Taylor, Follin H. Pickel.

McGill University—R. B. Struthers, J. A. Springle, W. D. T. Fergusson, F. D. Robertson, John Geo. McCarthy, F. G. Desmond, James Hewitt and C. P. Dewar.

Queen's College—Jas. N. Anglin.

Dr. Alfred Smith, of the Toronto School of Medicine, also received the license.

It was resolved that the following members be a committee to take the steps necessary for the presentation of the Medical Bill before the Legislature: Drs. Lemieux, Belleau, Lachapelle and Parke.

Moved By Dr. Christie, seconded by Dr. Durocher, That the Bill be withheld for six months. Lost.

Meeting then adjourned.

WETTING WITH FRESH AND SALT WATER.

The *Dublin Medical Press* says:—Whether a fact in science or not, there exists a very general impression amongst those who have been much at sea, that there is little or no danger to health from being wetted with sea-water. It is a proverb amongst sailors that there is no danger from getting wet from salt water. On the other hand, old tropical residents, far more even than those living in temperate latitudes, have a great fear of getting wet, either from rain or other sources. An attempted explanation of these different results was made so far back as in 1839, by Robert Mudie, who remarked that "the evaporation of sea-water from any surface has not nearly so cooling an effect as the evaporation of fresh water from the same, and thus a sailor may get wet and dry with the spray of the sea, and even with the sea fairly breaking over him, with far more impunity than a landsman

can get wet and dry by exposure to showers." The reason of this is easily explained, the evaporation of pure water is complete, and accompanied by nothing but an absorption of the action of heat, and a consequent reduction of temperature; but, in the case of sea-water, and the crystallisation of a certain portion of the salt, which has been previously distributed through the water, and the holding of which in a state of solution requires a certain action of heat; when the salt again crystallises this action is set free, and in so far counteracts the cooling effects of the evaporation, hence it is a fact that there is greater safety in being wetted with sea-water than with rain. Human experience has commonly shown great truths, ages before science has explained.

TREATMENT OF SICK HEADACHE.

Dr. W. Gill Wylie, of New York, has produced excellent results with the following method of treatment. So soon as the first pain is felt, the patient is to take a pill or capsule, containing one grain of inspissated ox-gall and one drop of oil of gaultheria every hour, until relief is felt, or until six have been taken. Dr. Wylie states that sick-headache as such is almost invariably cut short by this plan, although some pain of a neuralgic character remains in a few cases.

THE MONTREAL MEDICAL JOURNAL.

The Canada Medical and Surgical Journal will on the 1st of July change its name to "The Montreal Medical Journal," and increase its pages from 64 to 84 pages each number. We congratulate our contemporary on this evidence of its growth, and wish every possible prosperity.

BEAUTIFUL CHEMICAL PREPARATION.

A snow white mass of Caffeine, the active principle of coffee, (200 pounds, and of great value,) is now in exhibition in the window of William R. Warner & Co., 1228 Market street. This beautiful crystallization represents ten tons of coffee, and is used as an ingredient in the preparation of Brome Soda prescribed for the cure of headaches, migraine, nervousness, sea sickness, &c.—*Philadelphia Inquirer.*

DIET IN ALBUMINURIA.

The *Dublin Medical Press* says:—"The condition known as the 'large white kidney,' a malady of tolerably common occurrence, is due in a large number of cases to the chronic irritation set up in the eliminatory organs by the excretion of incompletely oxidized nitrogenous matter, resulting either from excess of nitrogenous material ingested or from hepatic or other visceral disease. In either case it is important to bear in mind that the object to have in view is to reduce, or at any rate not to augment, the quantity of these partially oxidized products. For this reason albuminuric patients should avoid foods containing an abundance of these extractives. Beef tea, beef extracts, and the like are little less than poison to them, as they infallibly accentuate the irritation and aggravate its results. It has been found that the systematic subcutaneous injection of these substances in guinea-pigs gave rise to the characteristic renal lesions with the usual train of symptoms, the severity of which was in direct proportion with the quantities injected."

BRITISH COLUMBIA MEDICAL COUNCIL.

The regular Semi-Annual Meeting of the British Columbia Medical Council was held in Victoria on the 1st, 2nd, 3rd and 4th of May. Present: Dr. Davie (Victoria), Vice-President; Dr. Milne (Victoria), Registrar; Dr. Hanington (Victoria), Treasurer; Dr. McGuigan (Vancouver), Dr. Powell (Victoria), and Dr. DeWolf Smith (New Westminster).

The Treasurer's report showed that the Council had a satisfactory balance on hand, and it was resolved to devote a portion of this to the prosecution of unregistered practitioners throughout the Province.

Two candidates presented themselves for the license, but were referred for six months.

The election of officers for the ensuing year resulted as follows: President, Dr. J. C. Davie; Vice-President, D. W. J. McGuigan; Registrar, Dr. G. L. Milne; Treasurer, Dr. E. B. C. Hanington,—the two latter being re-elected.

The Committee on Fees, appointed at the last meeting, brought in a report recommending a scale of fees, which was adopted by the Council, and ordered to be printed.

The Council then adjourned. The next meeting will be held in Vancouver, on the first Tuesday in November, 1888.

CANADIAN MEDICAL ASSOCIATION.

The twenty first Annual Meeting of the Canadian Medical Association will be held in the city of Ottawa on the 12th, 13th and 14th of September next. The following are the officers of the Association :—President, J. E. Graham, M.D., Toronto ; President elect, George Ross, M.D., Montreal ; Secretary, James Bell, M.D., Montreal ; Treasurer, Charles Stuart, M.D., Toronto ; Vice-Presidents—For Ontario, Dr. Eccles, London ; Quebec, Dr. Christie, Lachute ; New Brunswick, Dr. Currie, Fredericton ; Nova Scotia, Dr. Wickwire, Halifax ; Manitoba, Dr. Blanchard, Winnipeg ; British Columbia, Dr. True, New Westminster. Local Secretaries—For Ontario, Dr. J. A. Grant, jun., Ottawa ; Quebec, Dr. Armstrong, Montreal ; New Brunswick, Dr. Lunnan, Campbellton ; Nova Scotia, Dr. Trueman, Sackville ; Manitoba, Dr. Chown, Winnipeg ; British Columbia, Dr. Neilin, Victoria.

THE NEW MEDICAL BILL FOR QUEBEC.

Petitions, largely signed by the Profession, have been presented to the Legislature against the new Medical Bill, and, so far as we can judge, the prospect of its being rejected by a considerable majority seems to increase every day. In our next issue we will be able to give the definite result.

THE CODE OF ETHICS OF THE AMERICAN MEDICAL ASSOCIATION.

ART. II.—*Professional services of physicians to each other.*

1. All practitioners of medicine, their wives, and their children, while under the paternal care, are entitled to the gratuitous services of any one or more of the faculty residing near them, whose assistance may be desired. A physician afflicted whith disease is usually an incompetent judge of his own case ; and the natural anxiety and solicitude which he experiences at the sickness of a wife, a child, or any one who, by the ties of consanguinity, is rendered peculiarly dear to him, tend to obscure his judgment, and produce timidity and irresolution in his practice. Under such circumstances, medical men are peculiarly dependent upon each other, and kind offices and professional aid should always be cheerfully and gratuitously afforded. Visits ought not, however, to be obtruded officiously, as such unasked civility may give rise to embarrassment, or interfere with that choice on which confidence depends. But, if a distant member of the faculty, whose circumstances are affluent, request attendance, and an honorarium be offered, it should not be declined ; for no pecuniary obligation ought to be imposed, which the party receiving it would wish not to incur.

SACCHARINE TABLETS.

This chemical substitute for sugar, now prepared by W. A. Dyer & Co., Chemists of Montreal, possessing nearly 300 times the sweetening properties of cane sugar, can be used with perfect safety by those suffering from Diabetes, Bright's Disease, Dyspepsia, Obesity and every ailment where sugar is forbidden. The tablets are guaranteed as being perfectly free from cane or grape sugar, or anything a diabetic patient should avoid—and will impart to tea, coffee or any other substance a sweet and delicate flavor, which has been by many preferred to that obtained from commercial cane sugar.

PERSONAL.

Dr. S. A. Thomas (C.M., M.D., Bishop's College, 1888) has settled in Escanaba, Wisconsin. On St. Jean Baptiste day, by invitation, Dr. Thomas delivered the oration, which was well prepared and well delivered,—so say the local papers, and we can well believe it.

Drs. Wilkins, Wm. Gardner and Stewart, of the Faculty of Medicine of McGill University, have left for a three months' trip in Europe.

Dr. R. Palmer Howard, Dean of the McGill Faculty of Medicine, has gone for a much needed rest, and salmon fishing on the Cascapedia.

Dr. Richard MacDonnell of McGill Faculty of Medicine, who has been ill, is, we are pleased to say, rapidly improving. He proposes leaving for Europe shortly.

The Rev. J. B. Saunders (C.M., M.D., Bishop's College, 1885) has resigned the chair of Botany, which he held in his Alma Mater, owing to his removal to the pastorate of the Methodist Church in Pembroke, Ont.

Dr. McClure, late Superintendent of the Montreal General Hospital, has been ordained by the Presbytery of Montreal, as a Medical Missionary to China.

Dr. Clark (M.D. Bishop's College, 1888) is pursuing his medical studies in Edinburgh.

A few weeks ago, the Senior Editor of the RECORD being in London, England, called upon his old friend, Dr. Donald Baynes (M.D., McGill 1876, L. R. C. P. Lond.), who for some years filled the position of Professor of Laryngology, in Bishop's College, Faculty of Medicine, Montreal. We found him located in Harley Street, in the midst of London's most fashionable Physicians. Dr. Baynes has already acquired quite an extensive clientèle, and if we are not mistaken, there is a bright future in store for him.

It is reported upon excellent authority that Dr. W. Geo. Beers, Dentist, purposes leaving Montreal, and commencing the practice of his profession in London, England.

BOOK NOTICES.

It has been said that the success of specialists is in great part due to their attention to details. In order to master these latter in all their minuteness, it is generally necessary for the practitioner to devote some months, or weeks, at least, to the observation of the Hospital practice of the great specialists at some of the centres of medical teaching. And certainly this is the best way to acquire such information. But for those who are unable for various reasons to do so, the next best thing is to provide oneself with such a work as "the Rules of Aseptic and Antiseptic Surgery," by Arpad Gerster, M. D., Professor of Surgery at the New-York Polyclinic, visiting surgeon to the Mount Sinai and German Hospitals.

As the work is profusely illustrated with 251 engravings or photo-lithographs, taken in the operating room, during the progress of the operations, one almost imagines in reading the book that he is standing beside the operator. The text runs in such a clear and easy style, that perusal of this book is not only not a trouble but a relaxation. True to its title, it deals exhaustively of Sepsis and the means of preventing it, giving information which is not yet to be found in any other book. It is published by Appleton & Co. of New-York, in their well known style, on the most beautiful of paper and with the clearest of type. It may be had from Dawson Bros., Publishers, Montreal.

For those who have not enjoyed the advantages of a full classical education, and who are about to commence the study of medicine, the whole couse of their professional studies would be made very much easier by the perusal of a treatise entitled "The Language of Medicine," by Prof. F. R. Campbell, of Niagara University. It gives the exact meaning and derivation of nearly every word met with in Medicine, as well as complete rules for correct prescribing in Latin. Incidentally a very interesting history of Medicine is introduced. On this latter account, as well as for the amount of erudition displayed in its preparation, it will be read by even the oldest practitioner with satisfaction. There are cha ters on the "Latin Element in the Language of Medicine," "on the Origin of the Language of Medicine," "on the Greek Element in the Language of Medicine," and "On Elements Derived from the Modern Languages.

The book is published by Appleton & Co., of New York, and may be had of Dawson Bros., of Montreal.

The applied anatomy of the Nervous System, by Ambrose L. Ranney, Professor of Anatomy in the University of New York. The name of Ambrose Ranney is a sufficient guarantee that whatever he undertakes will be thoroughly carried out, and the present work, which although a second edition, is really a new work, having been entirely rewritten, is no exception to the rules. As a work of Anatomy alone it should be in the hands of every teacher of Anatomy, while as a work on Applied Anatomy it is invaluable to those who have anything to do with the diagnosing and treatment of nervous diseases. Nervous symptoms puzzle us more than any others in tracing them to their origin, and it is in interpreting them that this work would be of the greatest help. Since we first read Hilton's classical work on "Rest and Pain," we have not experienced as much pleasure in the perusal of any book of the kind as we did in reading this,—the latest and perhaps the best work on the anatomy of the nervous system.

It is profusely illustrated, and the type is large and clear. It is published by Appleton & Co., of New York, and is for sale by Dawson Bros., Montreal.

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Original Communications.

GYNECOLOGY AND OBSTETRICS.

By A. LAPTHORN SMITH, B.A., M.D., M.R.C.S., Eng., Lecturer on Gynecology in Bishop's College, Montreal.

As leucorrhœa is sometimes a disease which is very uncomfortable for the patient and tedious for the physician to cure, it may be of interest to draw the attention of the profession to the good results to be obtained by the use of Boracic Acid. Its remarkable powers have been observed over and over again by me when used in purulent otorrhœa, in which the odor is the most disagreeable symptom of the disease. Dr. N. F. Schwartz has reported a number of successful cases in leucorrhœa. (*Archives of Gynecology*, July 1888.) The method recommended is the same as that employed in otorrhœa, and is as follows: First irrigate the vagina with water as hot as can be borne; then a speculum is introduced, and the vaginal walls are carefully dried with absorbent cotton pledgets; sufficient boracic acid is poured through a cylindrical glass speculum to completely distend the vaginal vault, and surround the vaginal portion of the cervix. The powder is held firmly in place by small absorbent cotton tampons, supported by a large aseptic wool tampon. It is odorless, antiseptic, and healing.

Dr. M. H. Lackersteen (in the *Medical Standard*, August, 1886), gives an important communication on the value of Nitro-glycerine in collapse. He cites three cases in which recovery took place after the patient was apparently dead, by means of hypodermic injections of one to ten minims of the one per cent. solution. In one case, a young married lady who was suffering from the slow passage of a gall stone suddenly collapsed, and brandy, ether and ammonia failed to revive her. Neither respiration nor the heart sounds were detectable. She had been in this condition for nearly half an hour when the attending physician thought of nitro-glycerine, and gave her an injection of ten drops of the one per cent. solution. In a minute there was a gasp but no pulse; the second minute showed irregular respiration, and the heart began to quiver. An injection of one-tenth of a grain of Atropine was then given, and soon after the pulse became perceptible, the blood began to circulate, and other signs of returning life appeared. The next morning she passed twenty-eight gall stones and a large slough. The second case was that of a young lady who fell into a lake and was submerged for three minutes, and who, after some hours exertion on the part of attending physicians, was given up for dead. Electricity had been applied without value. Four minims of one per cent. nitro-glycerine were injected over the pit of the stomach. Within three minutes evidences of life were manifest.

In the the third case a still-born child was resuscitated by the hypodermic injection of two minims of one per cent. nitro-glycerine, diluted with a hundred drops of hot water, and a proportionate quantity of atropine which was injected into the cord. In a minute the child's heart began to beat, and it is now living.

Would this treatment not be worth a trial in failure of the heart's action during and after labour? I can speak from experience, for having paid a visit

to the nitro-glycerine factory at Belœil near Montreal, I was promptly affected, as were the other members of the party, with a rush of blood to the head and palpitation of the heart.

In the *New York Medical Journal*, Dr. A. H. Goelet maintains that the use of a dilator and intra-uterine stem, by which dilatation is maintained, is a safe, satisfactory and reliable substitute for all the cutting operations upon the cervix heretofore used to overcome stenosis, obstruction, and flexions of the cervical canal. He insists upon using a moderate amount of dilatation, after which he employs the intra-uterine stem, which should be two inches long, that is half an inch shorter than the virgin uterus, and which is perforated through its centre with a considerable sized channel, which allows free drainage from the uterine cavity while it is in position. It terminates in a cup-shaped shoulder which prevents further entrance. This pessary is introduced after the dilatationis completed and retained in position by a cotton tampon, and is kept in usually about a week, the patient being confined to bed. There are three sizes, ten, twelve, and fourteen, the first being used for the first twenty-four hours, the second, the next two days, and after that the third size. To those who object to the stem as dangerous, he says that at one time they did not hesitate to use a sponge or laminaria tent, which blocks the canal, prevents drainage, and provokes constant irritation by its expansive power as long as it is retained. The stem is absolutely clean, allows free drainage, and provokes no irritation if the patient is kept quiet. In an experience of over three hundred cases he has not yet seen an objectionable symptom follow its use. Although this is a very good method I think the treatment of dysmenorrhœa from stenosis of the internal os by means of the negative continuous current through an olive-shaped electrode is a better method. As an instance of the good result following the treatment of dysmenorrhœa by means of the negative continuous current, I might mention the following case: Mrs. M., aged 26, came to me on the 23rd of May, had been attended by me six years ago for a miscarriage, or rather for the hemorrhage, which had lasted seven eight weeks when I saw her. After appropriate treatment she became regular although the flow was scanty, only lasting a day and a half, and there was a good deal of pain on the first day; the uterus was hard and immovable, and the sound went in with the greatest difficulty three and a half inches. I gave her forty Milliampères, negative five minutes, when the sound came out with the greatest ease.

On the first of June I gave her fifty M, neg. five minutes; the sound entered quite freely, although a similar one had entered with difficulty the week before. She says she feels much better since.

On the seventh of June she informed me that she had menstruated since, and that it lasted three days instead of a day and a half, and that she did not suffer at all. I gave her 75 M., neg. five minutes.

July 7th she called to say that she had passed through a second menstrual period without any pain whatever; it lasted from Wednesday to Saturday morning, and was more profuse than it had been for two years, but not more than normal. Her bowels were regular every day, and she passed water without any discomfort.

August 2nd, she has now passed through three menstrual periods free from pain. She has had altogether three applications of the——current, gradually increasing in strength from forty to seventy-five M.

I have many similar cases recorded, but their history is pretty much the same as this, and the result has been generally quite as satisfactory, although in one case there was a slight return of the pain, requiring a few more applications of the current. I am not the only one who can speak thus well of this method of treating dysmenorrhœa, It might be well for me to remark, however, that it is only or at any rate especially useful in those cases of stenosis, in which the contraction of the canal is due to an inflammatory condition of the endometrium, or of the fibrous tissue in the uterine wall surrounding the internal os. I have no doubt whatever that the benefit which I have invariably found to follow its use is due to the resorbtion of this fibrous thickening. I do not think that this form of the current would be suitable for spasmodic cases, as there is generally a little hyperæmia of the mucous membrane following the application of the ——— pole. I also think that I perhaps used a stronger current than was necessary, as in strictures of the urethra, I have dilated up to twenty-eight French with a current not exceeding five M., for 10 or 15 minutes.

Doleris, one of the leading gynecologists of Paris, occupying a position similar to that of Munde in New York, says in the *Annales de Gynecologie*, that since 1885 he has adopted in the treatment of uterine displacements the combination of

plastic operations, colporraphy, perineorraphy and trachelorraphy with shortening of the round ligaments, for experience has shown, he says, that isolated operations are quickly followed by a return of the displacement. In thirty cases thus treated he has had twenty-seven cures and three partial failures. In a private letter which I have lately received from Dr. Kellog, of Battle Creek, Mich., he writes: "I have been doing a considerable work with Alexander's operation, and performed my fifty-fourth case the other day. I have got the operation down to a pretty fine point, so that I now do it without ether. I usually find the ligament in from six to seven minutes, so I make short work of it."

Although I have seen pretty good results in suitable cases from this method alone or combined with colporrhaphy, I have been investigating in another direction, namely, to ascertain whether tone may not be restored to the relaxed muscular fibres of the uterine ligaments, by means of the interrupted faradic current. My paper on this subject may be seen in the *American Journal of Obstetrics* for June, 1888. I am inclined to think that we have in this means a resource which may prove of the greatest possible advantage. Speaking of fibroids, my friend, Dr. Kellog, writes that he is obtaining cheering success with Apostoli's method; although he says he does not succeed in getting the patient to bear as large a current as I frequently do, namely, 200 to 250 milliamperes. This is probably owing to difference in size of the electrodes; the larger the electrode the less the friction and the greater the current that may be borne. He says he has discharged several patients cured, and has several more progressing rapidly in that direction. My own success with Apostoli's method in treating fibroids has gratified me more than anything I have ever done; I have at present eight cases under treatment in various stages of recovery.

I intend to give a full report of every case I have treated, but in the meantime I can say that its use has always been followed by great relief or more often complete cure of the pain.

Secondy: that menstruation has been rendered normal both as to time and to quantity.

Thirdly: That the flow has been increased when it was scanty, and diminished to normal when it was profuse.

Fourthly: That the size of the abdomen has invariably diminished, although in some cases it was not striking, and in other cases the decrease in the size of the tumor has been counterbalanced by a large deposit of fat in the abdominal wall. Fifthly: The obstinate constipation and the distension of the colon with gas has invariably been removed;

And Sixthly: The canal which sometimes resists the introduction of the sound during 5 or 6 séances has become in every case a matter of the greatest facility to enter.

I frankly admit it is tedious, requires untiring attention to details,and is only absolutely safe on the condition that the latter are never for one moment neglected.

As several cases of acute poisoning with Bichloride of mercury have been lately reported in medical journals of different countries, and as I have had one case which I have already reported, in which diarrhœa and collapse occurred after an intra-uterine injection of a one in three thousand solution, it would be well to warn obstetric practitioners of the danger of using bi-chloride for those purposes. Although I was at the time under the impression that the accident was due to my having neglected to thoroughly empty the vagina of the surplus liquid retained there, the writers who have reported the cases I now refer to seem to be of the opinion that the absorption took place through the placental site of the uterus, and this opinion would seem to be borne out by the fact that I have given several thousand *vaginal* douches of the one in five thousand bi-chloride solution, without a single bad effect. In any case, I think it would be better to discard the corrosive sublimate altogether in obstetric practice, as we possess in the permanganate of potash a means totally devoid of danger, yet probably quite as effective. I have been for many years in the habit of using it after delivery in the strength of one in forty of the Liquor Pot. Permanganatis, and invariably with the result of speedily reducing the temperature when above normal. In fact, with a thermometer carefully used to detect the disease at the beginning, and a return flow Fritz-Bozeman's intra-uterine catheter, and plenty of permanganate solution, I almost feel that I might bid defiance to puerperal fever, as out of 367 cases I have not lost one from this dread disease, the only death which I have ever had being a case of heart failure in a woman, whom I saw for a confrère, and who was delivered prematurely and incidentally. In every case of abnormal

temperature the fever has been immediately brought down by the removal of the septic material by the permanganate or carbolic acid solution, which I sometimes use when the parmanganate is not at hand. There is still a growing feeling that the less the parturient woman is examined the better, even by the doctor, still more is it absolutely necessary that the patient be warned not to allow herself to be examined by the mid-wife or nurse, who has no idea of the germ theory and the value of nail-brushes.

From inquiries which I have been making among my confrères, both in town and country, I have reason to believe that the death rate in midwifery in private practice has very greatly decreased during the last year or two, although in lying in hospitals it is still much larger than it should be, owing, no doubt, to the difficulty in making student nurses or pupils believe in the existence of disease germs. Many of the best teachers on the continent are beginning to employ external palpation alone for diagonising the position of the fœtus.

I had the pleasure a few weeks ago of assisting Dr. Gardner at a Tait operation for laceration of the perineum. Until I had seen it I could not have believed that it could have been so simple, and that the result could be so satisfactory. It consists simply in splitting up the rectal and viginal flaps of the recto vaginal septum to a depth of half an inch or so, and extending upwards to the last myrtiform caruncle on either side. The two sides are then brought together with three or four silk worm gut sutures, which are left in for ten or eleven days. By introducing them a line inside the edge of the skin, the patient is saved the pain which would be caused by the traction on the skin. She should especially abstain from drinking any milk for two weeks after the operation, because it always causes large, solid stools. Her principal nourishment should be thin gruel and beef tea, which leave almost no residue.

Society Proceedings.

MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

Stated Meeting, May 4th, 1888.

JAMES PERRIGO, M.D., PRESIDENT, IN THE CHAIR.

Dr. W. G. Stewart was elected a member of the Society.

Hemiglossitis.—Dr. SHEPHERD described a case of hemiglossitis which had recently been under his care in the General Hospital. The patient was a young man, 30 years of age, and the glossitis was limited to the right half of the tongue. The attack was ushered in by fever and malaise, and the case rapidly recovered. Dr. Shepherd remarked that this was a very rare affection, and much less severe than ordinary glossitis. It usually occurs in the left half of the tongue.

Severe Burns treated by Skin grafting.—Dr. BELL exhibited a case of severe burn of the forearm treated by skin-grafting. Patient, aged 24, had both forearms severely burnt with boiling beer. After a couple of weeks' treatment both forearms and arms from the wrists to two inches above the elbow joints were found to be deprived of skin and covered with granulations, with the exception of a narrow, irregular patch on the posterior surface of each forearm where vesication only had occurred. On the 6th of January, 1888, the granulating surfaces were scraped with Volkmann's spoons, thoroughly cleansed with sublimate solution, and covered with skin transplanted from the thighs by Thiersch's method. The dressings were removed at the end of three weeks, when it was found that the skin had taken everywhere with the exception of a few small isolated spots. These were afterwards transplanted in the same manner, and the skin completely reproduced. The patient has now been at work for over a month, and his arms remain perfectly well, the skin remaining unbroken and free from contraction.

PATHOLOGICAL SPECIMENS.

Parenchymatous Nephritis.—Dr. H. A. LAFLEUR exhibited for Dr. R. L. MacDonnell specimens from a case of chronic parenchymatous nephritis. Both kidneys were enlarged, soft, and of a mottled, reddish-yellow color. The capsules were non-adherent. The cortex was thickened and its striation indistinct. Under the microscope some of the tubules where found denuded of epithelium, while in others the lumen was occupied by a fatty granular detritus. The glomeruli showed commencing amyloid change.

Epithelioma of Inferior Maxilla.—Dr. LAFLEUR exhibited for Dr. Shepherd half of the inferior maxilla, removed for epithelioma secondary to disease of the lower lip. The mass of new growth was situated at angle of the jaw, and contained in its central portion a yellowish grumous

material and a thin mucoid fluid. Numerous epithelial cell-nests were seen with the microscope.

Dr. Shepherd stated that the disease had recurred after removal of the lower lip, eighteen months before. The patient was a man aged 50, and in good health. There was some enlargement of the cervical glands. The jaw was removed without much difficulty and with little hemorrhage, but in dissecting out the infiltrated glands in the neck which were behind the vessels the jugular vein was torn and had to be ligated. The patient made a good recovery, the temperature never rising above 100°. Dr. Shepherd mentioned that this was the fourth time he had tied the internal jugular vein in the course of operations on the neck, and had never seen any bad results follow.

Exostosis Bursata.—Dr. Bell exhibited an exostosis which he had removed from the inner border of the lower end of the right fumur in a boy 10 years of age. The bony growth, which was about the size of a fameuse apple, appeared to spring from the linea aspera below the epiphysal line. It had a bony pedicle about three-quarters of an inch long and about half an inch in diameter, and grew upwards and inwards at an angle of about 45° with the line of the shaft of the femur. Its surface was rough and covered with cartilage in small isolated pieces, which were closely placed, and formed a continuous layer over its surface, and the whole was enclosed in a perfectly formed synovial membrane, which became continuous with the periosteum of the pedicle at the cartilaginous border of the tumor, and contained about half an ounce of clear, amber-colored, viscid synovial-like secretion, in which floated loosely fifty-four small cartilaginous bodies exactly corresponding to the "floating cartilages" occasionally found in joints, especially the knee and elbow. The tumor was said to have been noticed nine years ago as a small *soft and movable* growth, about as large as a marble. It grew steadily, but only four years ago it became fixed and felt hard. It never gave any pain or other symptom except inconvenience and fatigue of the muscles in walking, and especially in going up-stairs. The only record of any similar cases which Dr. Bell has been able to find was in a paper read by Dr. Fehleisen at the fourteenth Congress of the "Deutschen Gesellschaft for Chirurgie" in Berlin in 1885. In his paper entitled "*Zur Casuistik der Exostosis Bursata*," Dr. Fehleisen reports a case which had occurred in Prof. Bergmann's Klinik, and refers to another which had occurred in Billroth's klinik in 1863, and which he believes to be the only one on record at this time (April, 1885). These two cases corresponded with the case related by Dr. Bell in every particular. In Bergmann's case the synovial membrane contained about 500 loose cartilaginous bodies (486 were collected), and in Billroth's case 35 were found.

The latter case was carefully investigated by Rindfliesch, who came to the conclusion that it had originated, not as an ordinary exostosis from the intermediary epiphysal cartilage, but as an ecchondrosis of the cartilage of the joint, which had pushed out a portion of the synovial membrane, which in time had become cut off from the joint, and formed a separate sac over the tumor. Fehleisen, however, attributes these tumors to a developmental error by which a group of cells, separated from the joint and lying dormant as an indifferent cell mass for a variable period, springs into active growth, and produces this special form of exostosis. He also points out that, although the ordinary exostosis which frequently grow from the epiphysal line at the ends of the long bones, especially the femur and humerus, are often covered or partially enclosed in bursæ mucosæ, these cavities never contain free cartilaginous bodies. Moreover, he ascribes the origin of the free "floating cartilages" to tufts of the synovial membrane, in which are found minute islands of hyaline cartilage, which develop and are set free into the cavity of the synovial sac, both in the larger joints and in the exostosis bursata.

Discussion.—Dr. Shepherd said the case was a most interesting one from the light it threw on the formation of floating cartilage in joints. He was convinced that the little buds of cartilage growing from the inside of the synovial membranes were the origin of the free cartilaginous bodies. They no doubt grew till they fell off from their own weight. This form of exostosis he had never seen before; the ordinary exostosis is comparatively common, and grows from the epiphysal cartilage, and stops growing with the maturity of the individual. He had seen two well-marked cases within the last few weeks; one was in a boy of 16, which had reached a considerable size and was continually growing. Billroth, in his Clinical Surgery, mentions a case of exostosis bursata olecrani.

Dr. Fenwick said that this case was a unique one, so far as his experience went. He had in his possession a large exostosis, of the lower end of

the femur. It had firm compact tissue on the outside, but inside it was made up of loose cancellous tissue with a number of free pieces of bone. He had obtained this from the dissecting-room, and he was unable to say whether or not there was a bursa in connection with it, but it was covered with cartilage.

Patent Foramen Ovale.—Dr. Richard MacDonnell exhibited a heart showing a patent foramen ovale. The heart had been found in the dissecting-room last winter. The body from which it was taken was that of a young woman, age 25, who had died in the Montreal General Hospital of phthisis with empyema. Dr. MacDonnell first saw the case in 1883, when she came to the out-door department, suffering from primary syphilis. She was very thin and delicate, but there was no evidence in life that she suffered from any vascular derangement. Her mental faculties were defective. During that year she was a constant attendant a the clinic, presenting many well-marked symptoms of secondary syphilis, notably alopecia, sore throat, and iritis. In 1884 and 1885 she was admitted to the wards on several occasions, and her chest was frequently examined, but no evidence of cardiac disease was ever found. The last admission was on May 8th,when distinct evidences of phthisis were seen. She died June 7th, 1887, with extensive softening of right lung and a thickened pleura containing pus. Dr. MacDonnell thus had the case under observation for four years, without having noticed any cardiac symptoms or physical signs of defective heart action. The opening in the fossa ovalis was of large size.

Suprapubic Cystotomy.—Dr. Roddick exibited a calculus weighing 15 drachms, which he had removed from a man, aged 52, by the suprapubic operation. Twelve years ago he had removed a stone from the same man, by the lateral operation. He remained well up to eighteen month ago, when symptoms of stone reappeared. He preferred the suprapubic operation on this occasion, because of the large size of the stone, and because he had formerly performed the lateral operation. He did not suture the bladder.

Discussion.—Dr. Fenwick was present at the operation, and congratulated Dr. Roddick on the success of his operation. He, however, saw no reason why a previous operation should contraindicate a second one. He had several times operated a second time with success ; on one patient he had operated four times successfully. He thought that entering the bladder by the perineum is the most natural way, and there is no danger of hemorrhage and infiltration of urine as in the suprapubic. He had removed very large stones by the lateral method by cutting both sides of the prostate.

Dr. Shepherd could not agree with Dr. Fenwick that lateral lithotomy was the most natural and easiest operation. In cases of suprapubic lithotomy he preferred to introduce a drain in the abdominal wound and to sature the bladder, so that if the bladder did not unite by first intention there would be an outlet for the urine. The bladder should be drained by a catheter in the urethra.

Dr. Bell said the bladder could not be thoroughly drained through the penis. He believed the operation of the future will be suprapubic lithotomy with drainage through the perineum.

Dr. Roddick, in reply, said that the chief reason why he had made use of the high operation was on account of the large size of the stone. With regard to suturing the bladder, recent disastrous results had been reported by Thompson and others.

Poisoning by Bichromate of Potash —Dr. Ruttan read for Dr. Lafleur and himself a paper on bichromate poisoning.

Dr. Stewart asked Dr. Ruttan if the ordinary symptoms produced by nitrites could be explained by the formation of hæmoglobin.

Dr. Reed referred to a case of bichromate poisoning reported in the London *Lancet* in which death occurred in 55 minutes. The man had taken four drachms of salt. Cases of recovery after taking 10 to 15 grains had been reported. Symptoms were vomiting, pain and hemorrhage.

Dr. Ruttan, in reply to Dr. Stewart, said that while the toxic symptoms of nitrites were, in his opinion, undoubtedly due to methæmoglobin, the ordinary nervous symptoms produced by nitrites could not be so easily accounted for. The methæmoglobin in the blood, by preventing the proper oxidation of cerebral centres, must impair their functional activity. The lowered temperature after the administration of nitrite of amyl and potassium nitrite is more easily explained by deficient oxidation produced by this blood change than any other way.

Stated Meeting, May 18th, 1888.

DR. TRENHOLME IN THE CHAIR.

New Members.—Drs. J. H. Bell, R. C. Kirkpatrick, J. A. Springle and J. E. Orr were elected members of the Society.

Malignant Tumor of the Spine.—DR. LAFLEUR exhibited specimens and sections from a case of alveolar sarcoma of the vertebræ. At the autopsy performed by Dr. Bell, a tumor was found involving the posterior part of the bodies and the laminæ of the 9th and 10th dorsal vertebræ and the inter-vertebral cartilage. There was in this situation unusual mobility of the vertebral column and slight prominence of the spinous processes. The new growth could also be felt anteriorly at the base of the pleural sac as a convex bony ring half an inch in thickness, which was found to be the expanded and ossified edge of the 9th inter-vertebral disk. There was no involvement of the prevertebral structures, but the spinal muscles on both sides of the affected vertebræ were infiltrated. A longitudinal section of the vertebræ showed that the cord was affected only from pressure by the new growth, which completely surrounded it. Below the point of pressure the cord was softened. The ninth inter-vertebral disk was destroyed, all that remained being a thin calcareous plate between the vertebræ and the ossified edge of the cartilage before mentioned. On the under surface of the left lobe of the liver there was a secondary nodule as large as a small hazel-nut, and of a pinkish-white color. This was the only metastatic growth in the body. Microscopically the growth was found to be an alveolar sarcoma, consisting of somewhat large oval cells, with large nuclei in an alveolated fibrous stroma. The cells did not lie free in the alveolus, but were held together by a network of fine fibres derived from the alveolar wall. In the secondary nodule from the liver the alveolar structure was more obscure. Patient suffered from chronic cystitis and bedsores, and the immediate cause of death was a double basic pneumonia.

Dr. BELL gave the following history of the case; —The patient was a man, age 60 years, who had long been a hard drinker, but who had never had venereal disease of any kind. He began to complain of "lumbago" in November, 1887, which grew worse until, in the early part of March, his legs grew so weak that he could not get about. Complete paraplegia soon followed, incontinence of urine, loss of sensation around the abdomen. A painful prominence was noticed over the fourth and fifth dorsal vertebræ, and he experienced great pain in this region when being moved. He sank rapidly, and died from a hypostatic pneumonia.

Dr. STEWART said that he saw the patient, and found loss of motor power and partial loss of sensation, which were strong indication of pressure. The systemic disturbance was too great to be accounted for except by the presence of malignant disease.

Some Clinical Observations on Syphilis.—Dr. RODDICK read a paper on the above subject.

Discussion.—Dr. BELL said that Dr. Roddick's interesting series of cases suggested several cases in his experience in which the disease had been contracted in an unusual way. One case was that of a young lady who had a doubtful-looking sore on her lip which was followed by secondary symptoms. The cause of the primary sore was traced to her having been kissed by a man who at the time was under treatment for secondary syphilis. Later the patient showed many symptoms of secondary syphilis. In his experience, cases treated with potassium iodide are not relieved so rapidly and certainly as when treated by mercury, except in the tertiary stage of the disease. He had met cases supposed to be receiving treatment without mercury which were really undergoing mercuria treatment.

Dr. MACDONNELL said that the peculiar liability of glass blowers to take syphilis is mentioned by very old writers on this subject. It is strange there is not more extragenital syphilis contracted than there is. The habit of using public combs and brushes in hotels and in barber shops is very dangerous, yet he had never heard of a case where the disease was contracted in this way. With regard to treatment, he believes in the use of mercury from the very first. Cases where treatment is delayed are apt to be more violent. Dr. MACDONNELL asked Dr. RODDICK in what cases of chancre he would recommend the use of mercury at once.

Dr. SHEPHERD had seen secondary symptoms follow in the case of a girl bitten by another girl on the lower lip. A small indolent but well-defined sore marked the spot where the wound was made. Dr. Shepherd also referred to the case of a medical man, who would not be likely to overlook a specific sore on himself, that came to him with marked

secondary symptoms, but could give no idea of how he had contracted the disease beyond the fact that he was exposed to it in the course of his practice. He had never had anything resembling a primary sore. With regard to treatment, he did not believe it was always, not even generally, possible to abort the secondary symptoms by immediate treatment. The Germans are divided between the value of baths and of mercury. He believed that mercury at least had the power of postponing the secondary rash. He was in the habit of waiting until the early secondary symptoms appeared before beginning specific treatment. He had lately seen several cases of multiple chancre where, after a week or ten days, one or more would take on the appearance of a hard chancre, and then only yield to mercurial treatment. Hutchinson thinks that cases can be cured from the beginning, but this has been disputed. A class of patients that are difficult to treat are those in which severe salivation follows very small doses of mercury. He always uses mercury in the primary and secondary stages, but prefers potassium iodide in the tertiary. Where potassium iodide disagrees with the patient, the ammonium salt is often found serviceable. Some recent observations and comparisons go to show that, in Portugal, at any rate, syphilis is not of so virulent a type as formerly.

Dr. J. C. CAMERON held Hutchinson's opinion as to the curability of the disease. He finds in many cases small doses of grey powder a very efficient way of introducing mercury. He had seen cases of soft external sores that subsequently took on a specific appearance from contamination, owing to the presence of an unsuspected hard sore in the urethra. He did not think medical men, as a rule, expressed themselves strongly enough regarding the best means of prophylactic treatment. This is a matter that should be taken up and dealt with by every Board of Health. He advocated a rigid system of inspection. In cities in Europe where this has been done the frequency of the disease has rapidly decreased. He was lately imformed by a surgeon of a case where one hundred men had been infected from one source. At a recent meeting of the Academy of Physicians in Paris, several sessions were devoted to the discussion of this important subject.

Dr. RODDICK, in reply, said he quite agreed with the last speaker, that something should be done to protect innocent persons from this disease. In answer to Dr. MacDonnell, he said that the history of a sore was the best guide to the treatment. He finds that if the sore comes on over ten days after exposure, in at least 85 per cent. it is hard chancre. In doubtful cases he waits for the appearance of enlarged glands in the groin. It is not to be forgotten that soft sores sometimes take on a specific character after a few days. He had given grey powder in one-grain doses, but not habitually. He usually administers mercury in the form of ¼ grain protiodide pills. He has found that where potassium iodide disagreed with a patient, sodium iodide could be substituted with advantage. In conclusion, Dr. Roddick said he was satisfied that syphilis was less virulent now than formerly. The aggravated rupial syphilis of the older writers is now very rare; doubtless the poison is becoming attenuated.

Stated Meeting, June 1st, 1888.

JAS. PERRIGO, M.D., PRESIDENT, IN THE CHAIR.

Dr. C. W. Haentschel was elected a member.

Fibrous Tumor of the Thigh.—Dr. LAFLEUR exhibited the specimen for Dr. Fenwick, and said that the tumor, a fibro-sarcoma, was oval in shape, 7 in. long, 4 in. wide and 3 in. thick, very firm and hard, and invested in a fibrous capsule. On section the central part was found to be ossified, and of a greyish white colour, while the outer portions were soft and of a pinkish-white colour. The latter showed under the microscope interlacing bundles of spindle cells, with oval nuclei, while the former consisted of an irregular alveolar structure simulating bone, with very few spindle cells.

Dr. FENWICK said that the tumor was removed from a woman aged 45. The patient had no constitutional symptoms of cancer, and there was no enlargement of the inguinal glands. The tumor felt quite movable, but was bound down by fascia. It was eight years in growing, and its appearance as a flat, firm swelling could be traced to a strain caused by lifting a sewing machine. The patient said that she remembered feeling something give way at the time. It was for most of the time quite painless, but latterly, on exertion, sharp paroxysmal pain was produced. There was no tenderness on pressure, and no spots of softening could be felt. The operation was difficult, as the growth was deeply seated on the anterior surface of the right thigh, beneath the muscles, and was firmly attached to the deep fascia. The patient was now convalescent.

Enlarged Testicle.—Dr. Lafleur exhibited an enlarged testis recently removed by Dr. Roddick. Testicle was the size of a turkey's egg, uniformly enlarged, and very firm and elastic to the feel. On section the epididymis was found to be entirely converted into a somewhat firm caseous mass of a dull yellow colour. The body of the testis, which was of a greyish color, was studded with gelatinous-looking nodules, having the size and appearance of boiled tapioca grains, and in the centre of each of these was a minute caseating point. Towards the epididymis these caseating points coalesced, forming bands from the Body of Highmore to the circumference of the testicle. Microscopic examination showed that eachca seating point corresponded to a seminal duct, the lumen of which was filled with a granular detritus, while the caseating process extended to some distance around each tubule. The intercellular tissue was greatly increased, and consisted of a coarse reticulum, in the meshes of which were small lymphoid cells and several multinucleated giant cells. The spermatic cord was thickened and hard, and showed a small-celled infiltration around its lumen which was filled with a granular debris. The case appeared to be a somewhat anomalous one of tubercular testis, the change affecting the body of the testis generally as well as the epididymis; the rapidity of the process was remarkable, and might, perhaps, account for the absence of a usual soft semi-fluid caseous matter generally found in such cases.

The following history was furnished by Dr. Roddick: The patient, a thin, anæmic-looking man about 46 years of age, good family history, had had two attacks of gonorrhœal orchitis several years before, from which he apparently perfectly recovered. The present trouble began suddenly in October last without apparent cause, the testicle becoming hard and enlarged after an emission. The pain was never great, although the swelling gradually increased until it reached the size of a large turkey's egg. It was dense in feel, with the exception of a spot on the anterior aspect which fluctuated, and from which about a drachm of straw-colored fluid was withdrawn with the hypodermic needle. Dr. Wilkins, who first saw the case, strapped the testicle, and thus gave great relief from the dragging sensation experienced. He handed the case over to Dr. Roddick, who applied counter-irritation in various forms, but with very indifferent results. Latterly the cord became firmer and more thickened than normal, and on the 20th of June the testicle was excised. The case was looked upon as a very obscure, and no diagnosis was made.

Tumor of the Spinal Cord.—Dr. Lafleur exhibited for Dr. R.L. MacDonnell a small, oval tumor removed from the spinal cord at an autopsy. The tumor, which was somewhat bean-shaped, being 2.5 centimetres in length, 1.00 cm. in breadth, and 1.00 cm. in thickness, was situated in the anterior and right surface of the cord, at the level of the sixth pair of dorsal nerves, 17.50 cm. from the cauda equina. It lay between the layers of the arachnoid and was freely movable, being nowhere attached either to the cord or to the dura mater. Two small nerve filaments from the cord passed behind it, but were only superfically attached to it. The tumor was moderately firm and elastic, and was invested by a distinct, thin, fibrous capsule. On section, it was of uniform consistency, and of a yellowish-grey color. Under the microscope, it was found to consist entirely of irregularly distributed bands of nucleated fibrous tissue. No nerve elements and few bloods vessels were found in it. The cord below the tumor was very soft and shrunken.

Dr. MacDonnell said that the patient was a man about 50 years of age and of large frame. Three years ago he began to have difficulty in walking, and complained of severe pains in limbs. The gait at this time was spastic, the reflexes were increased, and there was marked ankle clonus. The paresisin lower extremities increased gradually, the patient becoming finally completely paraplegic, with loss of reflexes and sensation, and loss of power in the anal and vesical sphincters. He remained in this condition for eighteen months, during which time he had complete use of his upper extremities and trunk muscles. The cause of death was a double basic broncho-pneumonia. The diagnosis of spinal tumor was not made, the patient being supposed to suffer from sclerosis of the lateral columns of the cord.

Dr. Spendlove then read the following paper, entitled

Some Observations upon Tapeworms.

Having met with a number of cases of tapeworm during the past four years, I propose to make some remarks upon what I have observed in connection with them, and the treatment which I have found the most successful in their removal.

Of the several species of tapeworm, two only are

common to America—the Tænia solium, or pork tapeworm, and the Tænia medio-canellata, or beef tapeworm. The pork tapeworm is most frequently met with in the Southern States; the beef tapeworm in the Northern States and Canada. The origin of both species in man is from eating raw or underdone measley pork or fish, in the case of the pork tapeworm; and raw or underdone measley beef, in the case of the beef tapeworm. The measle is seen as a round or oval, hard and whitish body, from the size of a mustard seed to that of a pea; it contains a sac of connective tissue enclosing the solex or larvæ tapeworm. When the measle is swallowed by man, the covering of connective tissue is digested in the stomach, the solex is released, passes into the small intestines, becomes attached to the mucous membrane by its head, develops and grows into the adult worm. The time usually taken for the growth of an adult worm is from three to four months.

The principal differences between the two species of adult tapeworms are the greater length of the Tænia medio-canellata, the larger size of the head, the absence of hooks, the greater length, breadth and thickness of the individual joints, and the more fully developed sexual organs.

Regarding the symptoms, there are none which are diagnostic of tapeworm; it is only when some of the joints have been passed that we can arrive at a positive diagnosis. Yet there are certain groups of symptoms, principally of a reflex nature that should make us suspicious of its presences For example, when we meet with certain case, where several well-marked nervous symptoms are present, without reference to any special lesion of the nervous system,—if there are periods of perfect or nearly perfect freedom, and especially if to these are added various ill-defined symptoms of digestive disturbance, if we do not in these cases have tapeworm in the mind's eye, we often do an injustice to our patient, an injury to our professional reputation, besides helping to feather the nest of the quacks.

Treatment.—It is the treatment with pumpkin-seeds, *Cucurbita pepo*, that I wish to direct your attention, and particularly the manner of giving them, which I have found the most successful, and which is as follows: First allow the patient to take a good dinner in the middle of the day; to eat nothing at night; before going to bed take a dose of sulphate of magnesia (Epsom salts) sufficient to cause a free movement of the bowels; after this has taken place, give half to two-thirds of a teacupful of pumpkin seeds free from the shell, direct them to be eaten slowly, to be well chewed, and to be taken dry. About three hours after give the second dose of sulphate of magnesia; after that the patient can take his regular meals. In the majority of cases the worm appears from 5 to 9 p.m.

I would particularly call your attention to the manner of giving the seeds dry, to be well chewed, and not made into an infusion or emulsion, as generally directed.

Regarding the *modus operandi* of the seeds upon tapeworm, from the fact that they act best given dry and well chewed (which is the best method for the absorption of their active principle, a fixed oil), and from the fact that in every case the tapeworms have come away unbroken, and in many cases alive, including the head, I am of the opinion that it acts through the circulation upon the head, and not as an irritant to the body of the worm. I will cite a few of the more important cases only, to show the action of the medicine.

Case 1.—Painter by trade; brought me some joints of a beef tapeworm he had passed. The only symptoms were slight abdominal uneasiness, if he did not have his meals at regular intervals. Gave sulphate of magnesia and pumpkin seeds in the form of an emulsion; no effect. A few days after gave magnesia and the seeds dry; Tænia medio-canellata, twenty-five feet. Three months after, more joints passed; gave magnesia and seeds as directed; Tænia medio-canellata twenty feet. I subsequently obtained some smaller worms of the same species from this patient. I then gave him a mixture of potassic bromide and infusion of gentian. There has been no return in three years. I have found this mixture very efficacious in removing the abnormal condition of the bowels which is so frequently met with in these cases.

Case 2.—Middle-aged gentleman, born in Malta; uses tobacco and liquors in moderate quantities, but habitually and for a long time; brought me several joints of a Tænia solium that he had passed. Gave magnesia and seeds as directed. Tænia solium of seventy feet. No return in three years.

Case 3.—Mechanic, born in the Southern States; had tape-worm for twelve years; repeated attempts at removal during this time, but never successful in getting the head, and it rapidly grew again. Two years previous to his consulting me he contracted syphilis; secondary symptoms severe and obstinate; had taken mercury for nearly two years,

consulted me for the syphilitic lesions and not for the tapeworm; said he had given up all hopes of having it entirely removed, and it gave him no inconvenience beyond the disagreeable sensations produced by its coming down when he was walking, sometimes as far as the knees, returning again to its former abode. Gave magnesia and seeds; Tænia solium twenty feet; no return in four years.

Case No. 1 shows the rapidity with which the tapeworm grows; the whole number being removed within eight months, the second one of twenty feet, three months after the first one.

Cases No. 2 and 3 show that the habitual use of tobacco and liquors, that syphilis and the prolonged use of mercury, have no effect upon tapeworm.

Progress of Science.

HOSPITAL NOTES.

QUINSY.—Pancoast showed a case of acute tonsillitis, for which he applied the antiphlogistic knife to the affected organs, and directed the patient to steam it well. Take an ounce of tinct. of myrrh, a pint each of water and of vinegar, boiling hot; throw a towel around the patient's head, and let him inhale the steam until he is in a profuse perspiration. This is very soothing to the inflamed mucous membrane.

NASAL CATARRH.—Pancoast advises the following as very useful in acute or chronic catarrh:

Borax	℥ ss
Tincture of myrrh	ʒ ss
Honey	ʒ ij
Infusion of cinchona, q. s. ad	f ʒ iv.

M.S.—A little to be poured in a cup of cool water, and snuffed up the nose occasionally.

FOR ANEMIA WITH CONSTIPATION:

℞ Elix. cinchonæ.....
Sp. aromatici ..... aa part aq
M. S—f ʒ j to f ℥ ss several times daily.

℞ Ext. ignatiæ amaræ.....gr. ½
Quininæ sulphat.....gr. ij
Capsici pulv.....gr. ½
M. ft. pil. S—Thrice daily.

A little carbolic acid may be added if the stools be fetid.—PANCOAST.

UNIVERSITY HOSPITAL.—Pepper reports the expulsion of tænia solium with head. The following was the procedure: The patient fasted during the day, and took a saline purge in the evening; the next day f ʒ ij of oleo-resin of male fern was given, rubbed up with sugar, at 7 A. M., 8 A. M. and 10 A. M. With the last dose a saline purge was given. He says it is useless to trifle with smaller doses of male fern.

ACUPUNCTURE IN LUMBAGO AND SCIATICA.—Pepper strongly recommends this little operation, which savors so strongly of empiricism. It should be done aseptically, and the needles, or rather strong steel pins, rather less than half the diameter of steel knitting needles, should be thrust to the bone. His theory as to the relief often afforded is, that the inflammatory exudation confined by dense fibrous structures, and which causes the pain, is drained off by the punctures.

RHEUMATOID ARTHRITIS.—Osler recommends arsenic in the form of Fowler's solution. He begins with gtt. iiij thrice daily, gradually increasing to the limit of tolerance, as shown by diarrhœa or slight ophthalmia. He has given 35 minims three times a day without bad results.

HEPATIC CHILLS.—Osler showed the liver and duodenum from a marked case of Charcot's hepatic intermittent fever. A gall stone about three-quarters of an inch in diameter was impacted at the mouth of the common duct. The patient had chills and a temperature of 104° F., at irregular intervals, followed by marked jaundice. Prof. Osler regards these attacks as analogous to those caused by the passage of an urethral instrument.

IRRITABLE BLADDER.—Goodell gives from 30–40 grs. of asafœtida per day. He has had incontinence after dilatation of the urethra by the finger in only one case. This patient loses two or three drops only, when she laughs or sneezes, but thinks nothing of this.

SCROFULOUS ABSCESSES.—These Agnew evacuates, removes all broken down tissue with curette and scissors, ligates bleeding points, inserts a drainage tube. After sewing up the wound he applies the usual antiseptic dressing.

MEDICO-CHIRURGICAL HOSPITAL.—After an attack of syphilitic laryngitis, the vocal cords rarely regain either their normal color or smoothness; and if the patient has a singing voice, his voice will never again be as clear, or have as high a compass as before.

Iodide of potassium will seldom relieve superficial syphilitic laryngitis, but the iodides of mercury will remove the trouble, sometimes with almost startling rapidity.—*Stern.*

CHRONIC ECZEMA.—A case of general eczema shown, contracted during the war. From head to foot the man's skin is rough, scaly and indurated. For some time he has been treated by the mouth, but his alimentary canal is in so poor a condition that medicine by that route seems not to get into his system. This is the class of cases in which hypodermatic medication often succeeds where everything else fails. He was ordered nothing but hypodermatic injections, every other day of gr. ¼ arsenite of sodium; the dose to be gradually increased to gr. j.

MILK DIET.—In prescribing a milk diet principally, the milk should be taken between meals, when regular meals are taken; and at any rate the

milk should be taken in small quantities at any time, in order to be the more easily and quickly taken up by the lacteals.

Quinine is a most valuable tonic for children, and is not prescribed enough. In this case he gave:

℞ Ferri et quininæ citratis..... ʒ j
Syrupi aurantii corticis..... ʒ iij M.
Sig.—Teaspoonful three times a day.

Predigested foods are also of much value in cases like this.

Magnesia Dangerous.—Stewart advises against the giving of dose upon dose of carbonate of magnesia, when it fails to purge.

It is likely to make a dangerous stone-like impaction in the intestine. He has known several cases of death from this cause.

"Obstetrical Aphorisms." — Stewart.—In cases of post partnm hemorrhage, where the patient is dangerously weak from loss of blood, do not neglect, along with other measures, to elevate the foot of the bed so that the brain may more easily receive blood.

Alum, ʒ j to the pint, is a cheap and good wash for excoriated nipples; so is tincture of catechu. If the excoriation is very bad, try arg. nit., gr. vj. to the ounce of rosewater. Have the nipples washed though, before the child is applied. Protect the nipples with a shield from being rubbed by the clothing; and if these measures are not sufficient, have the nipple covered by a shield while the child is sucking.

Within forty-eight, or the so-called "three days," you may have milk fever. The temperature may rise even as high as 103° or 104° This fever can usually be avoided by keeping the mother on mild, unstimulating diet for the first three days after child birth.

In treating this fever, I have found that a continuation of saline purgatives will much decrease, or perhaps stop, the flow of milk.

Accordingly I use other preparations—compound licorice powder, a good ʒ to a dose; or, better still, castor-oil. When the milk is deficient, cocoa in some form is generally of good service to increase the flow.

Uterine Hemorrhage in Pregnancy.—*Parish.*—Case of hemorrhage from the uterus in a women eight months pregnant. Whether a case of placenta previa or not, Dr. Parish said that the proper treatment here was to put the woman to bed and keep her there, and not allow her to rise from it for any purpose whatever. He advises a physician who has a case of placenta previa or suspected placenta previa on hand, to provide himself with a Barnes' dilator. In a dangerous hemorrhage, this will not only dilate the os for delivery, but will act as a tampon.

It is not well to keep a dilator in the office as you keep other instruments, because the rubber loses its elasticityin about two months, and is then useless

If you have no dilator, use the tampon; though of course only when absolutely necessary. He does not approve of absorbent-cotton for tamponing, as recommended by Parvin; for he says that the cotton, on account of its great attraction for fluids, is likely to favor the hemorrhage rather than to check it.

For his own part, he prefers a long strip of muslin or linen, such as an ordinary roller bandage, soaked in bi-chloride. Special care should be taken that the material is tightly packed around the os; then the vagina is to be filled; and finally external pressure kept up by a T-bandage.

If in delivery it be necessary to perform version, give an anæsthetic, in order to relax the uterus, and thus avoid the laceration of it, otherwise almost certain.

After delivery, hypodermic injections of ergot, injections into the uterus of hot water, or even a styptic applied to the internal surface of the uterus, will stop the bleeding if the inertia of the uterus is too great for proper contraction.

When a patient comes to you complaining of œdema of the prepuce, without local disease or injury, or œdema elsewhere, look for Bright's disease —the cirrhotic form.—*Waugh.*

Wills Eye Hospital—*Keyser.*—For a case of *phlyctenular conjunctivitis,* Keyser prescribed this ointment.

℞ Hydrargyri oxidi flavi.....gr. ¼
Adipis benzoati..... ʒ j

A case of *paralysis of the right external rectus* came before him a short time since. A specific origin was suspected, and the man was put on doses of gr. v. iodide of potash. In a week the justness of the treatment was proved by removal of the trouble.

A New Antiseptic.—Keyser considers the new antiseptic, silico-fluoride of sodium as the best in treating the eye. He uses it in his cataract operations, and also in gonorrhœal ophthalmia, instead of boric acid; and finds it much more rapid and certain in its action. The solution used is a saturated one—gr. ½ to the f℥.

Facial Epithelioma.—Keyser has good success in treating epithelioma of the face with powdered chlorate of potash. It is kept constantly applied to the spongy growth, and the irritation thus set up effectually removes the growth. This is of use only where the growth is soft.

Calomel is good in all phlyctenular troubles; but do not use it in phlyctenular keratitis during the stage of severe inflammation. Dust the calomel in the eye, and with the finger gently roll the lids over the ball, tlll tears are started. If you stop short of this, the calomel will cake in the eye.

Abdominal Surgery.—In cases of removal of the ovaries, Mongomery prefers braided silk ligatures for ligating the pedicle, as he is then certain that the ligature will remain on long enough to avoid all danger of hemorrhage.

In the course of over forty operations of this character, he has had no untoward result from the presence of the ligature.

For sewing up the abdominal incision he uses silk gut. Two small needles are put on each suture, one at either end. Each needle in the passed from within out, care being taken that the peritoneum is included well within the suture.

As a dressing for the wound, he employs simply a few layers of surgeon's lint soaked in carbolic acid and glycerine, 1 to 12; and over this is placed a package of absorbent cotton; the whole held in place by strips of adhesive plaster.

The giving of ice and cold water tends rather to increase thirst, so he gives instead an enema of a pint of warm water. Thus not only is the thirst allayed, but the blood is also not materially increased, and consequently the danger of hemorrhage is lessened. He checks the vomiting usually following the administration of ether, by two-drop doses of a four per cent. solution of hydrochlorate of cocaine every fifteen minutes or half hour.

A tendency to tympanites may generally be overcome by placing layers of cotton on the abdomen, and then tightly passing around the body strips of adhesive plaster. This keeps up the intra-abdominal pressure.

Infantile Colic.—When children complain of pain in the stomach, Dr. Atkinson says that a possible neuralgic character should be borne in mind. This is frequently not recognized. He advises an orange before breakfast for children, or for anyone suffering from loss of appetite. The acidity of the orange will often create a desire for more food.

Acid Indigestion.—With great acidity of the stomach, there is generally a burning pain along the line of the œsophagus. Patients frequently complain of "heartburn," too. For digestive trouble in a girl of ten, from acidity, he gave:

℞ Spiritu ammoniæ aromatici..... ʒ ij
Sodu bicarbonatis..... ʒ i
Syrupi..... ℥ i
Aquæ..... ℥ iij M

Sig.—A dessertspoonful every 3 hours.

If there should be much pain in the stomach, he advised the mother to apply flannel wrung out of hot water.

Indigestion.—Girl of five; has lost much flesh in the last six weeks; has cough and general malaise; is in the habit of eating an apple and a banana for breakfast. Dr. Atkinson is strongly opposed to the banana diet. He cited a case in which severe convulsions followed the eating of two bananas by a child. With great difficulty it was brought through the attack. The loving father then repeated the dose, contrary to the strictest orders; and this time nothing could save the victim.

Bananas for children should be few and far between.

INSOMNIA.

While insomnia or inability to sleep is not a distinct disease, it is at times productive of much distress, and interferes so seriously with the proper performance of the functions of the various organs of the body, that the best efforts of the physician are demanded for its relief. Insomnia is generally the result of prolonged mental study or intense excitement. At other times it is due to the action of malaria upon the nervous system. It not infrequently follows the excessive use of tea, tobacco, alcohol, etc., due to arterial and nervous excitement caused by these agents. Pathologically, all cases of insomnia can generally be divided into two classes, as that which results from nervous exaltation, characterized by an increase in the force and frequency of the pulse, and that which results from nervous depression with a diminution in the volume of the pulse, often followed by an anæmic condition of the cerebral arterioles. The treatment, to be successful, must vary with the cause and pathological conditions present. Physicians are well aware that opium, chloral, etc., are often used, and sometimes give relief; but the patient becomes habituated to the drug, must have the dose increased, and thereby a habit is formed, for which the best efforts of the physician are called on to check a habit which is worse than the sleeplessness for which the patient was treated. Bromide of soda and also the potassium salt is often used, and great benefit has resulted. In the treatment of neurasthenia great benefit has resulted from the use of the bromides of soda and potash, especially when in combination with a salt that will counteract the depressing effects resulting from the use of bromide. Such preparations are the bromo soda and bromo-potash, prepared by Wm. R. Warner & Co., and in the treatment of nervousness, debility and neurasthenia which can generally be ascribed to insomnia, they are especially efficient and agreeable. The bromo-soda preparation contains thirty grains of bromide of soda and one grain caffein. The bromo-potash preparation contains twenty grains of bromide of potash and one grain of caffein. Physicians will readily see that the merits of these two preparations need hardly be questioned, and they can not be disappointed in the therapeutic effects resulting from their use. They are put up in granular form, which makes a delightful effervescing draught, and gives the patient a desire to take these preparations, which are extremely palatable and beneficial. The preparation of bromo-soda was partly suggested by the late Dr. J. S. Jewell. Physicians have met with unfailing success in the use of bromo-soda in the treatment of nervous headache and the conditions resulting from an overworked and run-down system. The therapy of the preparation need hardly be questioned, as by its use the patient feels a relief not given by any other preparation given for the same symptoms.—*New England Medical Monthly.*

ANTIPYRIN IN HÆMOPTYSIS.

In the *Medizinskoit Obozrenie*, Dr. M. Byvalkevitch, at the Vilna Military Hospital, states that antipyrin is an excellent remedy for pulmonary hemorrhage of every kind. This statement is based on ten cases of hemoptysis in patients suffering from phthisis, bronchiectasis, cardiac diseases, and traumatic injury of the chest. The following mixture was invariably employed by Dr. Byvalkevitch: ℞ Antipyrini, ʒ ss; aq. destil. f ʒ iv; essentiæ menthæ pip. gtt. xv Mix. Dose, one tablespoonful every two or three hours. In none of these cases were more than two doses of the mixture required to completely arrest hæmoptysis, even when the daily loss of blood amounted to two fluid pounds. In some of the patients, ordinary hæmostatics, such as ergot, ergotin, digitalis, atropine, and Haller's elixir, had been previously tried without effect.—*British Med. Journal.*

ELEGANT MOUTH-WASH.

Edina sends a sample of a mouth-wash, half a tea-spoonful of which in a wineglassful of water is used to refresh the mouth. It is a pale crimson and transparent solution, with the odor of oil of wintergreen. Its composition is fairly represented by the following formula: Oil of wintergreen, ʒ j; Oil of peppermint, ℥xv; rose-aniline hydrochlorate (or magenta), gr ss; water, ʒ ss; glycerine, ʒ iij; rectified spirit to Oj. Dissolve the oils in the spirit, and the rose-aniline in the water; mix the latter solution with the glycerine, and pour it into the perfumed spirit. Mix.—*Chemist and Druggist.*

HUTCHINSON ON THE ABORTIVE TREATMENT OF SYPHILIS.

In a recent address on this subject, Dr. Jonathan Hutchinson (*The British Medical Journal*) informs us that for many years past he has been in the habit of assuring patients who came to him with indurated chancre, but without any other symptoms, that they would in all probability wholly escape the secondary stage. As the result of increasing experience, he now holds out this hope with more confidence than ever.

The best treatment of syphilis is of unquestioned importance, and so eminent an authority as Hutchinson is certainly entitled to a full hearing, even if his views are at variance with those held by others of equal prominence with himself. The author's doctrine is clearly opposed to the most recent teachings of the German and French schools.

This is what he says: "My treatment has been almost uniform, and has consisted in giving mercury in the form of gray powder in one grain doses three times a day, at least, and more frequently if the symptoms did not quickly yield. I have always told the patient that he must take these pills for six months at least. The results have also been very uniform, or have varied chiefly according to the period of the disease at which the treatment was begun. The effect of the medicine in softening the induration is usually quite evident within a week, and may be expected to be complete in the course of a month or a little more. After this the patient remains without symptoms till the end of the course, except, perhaps, some slight persisting enlargement of the inguinal glands. At the end of the six months, if the treatment is left off, there not very infrequently follows in three weeks or a month an erythematous general eruption. This eruption is never severe, never becomes papular or scaly, and always vanishes in a few days if the mercury is resumed. It is never attended by failure of health, and but rarely by sore throat. On account of its frequency after six months' courses, I have lately been in the habit of continuing the treatment for nine or twelve months, and am willing to admit that it might be wise to continue it for still longer periods. As regards relapses at still longer periods, I must state that, in a certain proportion of cases, sores in the mouth or scaly patches in the palms, or liability to transitory erythemata on the skin have occurred, but they have generally been in connection with some special kind of irritation."

Hutchinson maintains that it is quite possible, by the early and continuous use of mercury, to suppress the secondary stage—in other words, to make it abortive. In exceedingly few cases, where it has been possible to use mercury without interruption in this way, has he known a well-characterized secondary eruption or a typical sore throat to occur. In cases where diarrhœa or sudden ptyalism has caused the course to be interrupted, the success has been less complete. But where the patient is careful, and can bear the drug, he believes that it is easily possible to prevent secondary symptoms. This assertion is not by any means the same as saying that it is possible to cure syphilis, for it does not concern itself with the tertiary stage.

In concluding his instructive remarks, Hutchinson emphasizes the points which he has made, as follows: "The early use of mercury does not only greatly shorten the duration of the primary phenomena, but it also much modifies, and in many instances entirely prevents, these of the secondary one. When circumstances favor the febrile stage of the exanthem, syphilis may be rendered wholly abortive. If we can accept this proposition, we shall have gained a step in the orderliness of our future work, and in reference to this the following problems seem to lie before us:

"What plan of treatment is most successful in suppressing the febrile or secondary stage?

'Does the suppressing of this stage tend to prevent what are called reminders, or those minor, and for the most part local, symptoms which often intervene between the febrile stage and tertiary phenomena?

"Are those in whom the febrile stage has been aborted by artificial means more or less than others liable to tertiary phenomena?

"Is it possible, by anticipatory treatment, to prevent or abort the phenomena of the primary stage; and, if this be done, what is the influence upon the further course of the disease?"

It will remain for the accumulating experience of the entire profession to give decisive answers to this series of suggestive questions. *The Medical Record.*

THE VALUE OF THE NUTRITIVE BATH AND OF INUNCTION IN DISEASES OF CHILDREN.

By George Edw. Hopkins, M. D.

From The Medical Record.

In the more chronic bowel disorders, in which the child suffers through a period of several weeks, the whole alimentary tract being implicated, death finally takes place from exhaustion—essentially from starvation; for, no matter how carefully nursed and fed, the nourishment is not appropriated by the system. The blandest food acts rather as an irritant to the inflamed surfaces. The stomach itself, however, if there be no vomiting, is probably still capable of absorbing such material as requires no bowel-digestion. Here the most appropriate aliment is the whey of milk, and the white of an egg thoroughly beaten with water to considerable thinness, and lightly salted. These may be given alternately. Milk itself is of doubtful utility in these cases. If not digested, it becomes only a source of irritation. Gentle friction of the abdomen with some warm, bland oil is extremely useful. The absorbents of the skin are exceedingly active during such disease, and, if the friction be continued very gently for several minutes at different periods of the day, considerable nourishment may be thus obtained. Some oils are more appropriate than others, from being more easily absorbed.

Following each inunction, great relief is afforded by warm fomentations of camphor. Fold a light linen tissue (as a large handkerchief) three or four thicknesses, of a size to cover the whole abdomen; dip this in water warmer than the hand, ring out the drip, and sprinkle the warm surface lightly with spirits of camphor, apply it quickly to the abdomen. Then cover all with dry flannel underclothing. The warm camphorized vapor has a most soothing effect.

There are cases of these disorders in children in which the stomach will retain nothing. Even a teaspoonful of cold water is often rejected. Here it is manifestly impossible to do anything in the way of the stomach-feeding, and we must resort to other means. It is in these cases that the "soup bath" becomes a boon beyond all price. It not only relieves the thirst) which may be accomplished also by prolonged immersion in tepid water), but it imparts sufficient nourishment to tide the patient over the critical period. We have noticed a child's life most evidently saved by this simple means. Let some pieces of mutton or other meat, sufficient for making soup, be first simmered for an hour, and then boiled sufficiently long to thoroughly soften and extract the juices. In skimming do not take away all the fat. This latter may be skimmed off while cooling, and kept warm for inunction later. Pour the soup, when ready, into the little bath-tub, and, when sufficiently cool, immerse the child in it for a period of twenty minutes. It should, of course, have sufficient depth to cover the entire body, the head being supported by the nurse's hand. This should be repeated twice daily, the bath being rewarmed for second use, and a new soup made, if possible, each day. Let the bath be followed by inunction of the entire body with the fat that was set aside. After two or three days, if the case improve, the stomach will begin to retain light nourishment. In the meantime, the fomentations of camphor may be continued. Attempts at nourishment by the rectum are apt to be futile in these cases, as may be readily seen.

THE PREPARATION OF FOOD FOR THE SICK.

In making a beef tea the round of a good piece of beef should always be selected, and cut into small cubes not larger than half an inch in diameter. It should then be put to soak for two hours on the back of the range, in an earthen-ware pipkin, with one pint of cold water, and allowed to simmer for about fifteen minutes and boil for three minutes. After adding half a teaspoonful of salt and a little pepper, the tea is ready for use.

In the preparation of soups the first thing is the making of the so-called stock or basis for the soup. There are two distinct stocks: one which may be known as the brown stock, the other as clear or *consommé* stock. For the preparation of brown stock take four pounds of shin of beef, four quarts of cold water, ten whole cloves, four pepper corns, a bouquet of herbs (sweet marjoram, summer savory, thyme, and sage), one tablespoonful of salt, three small onions, one turnip, one carrot, two stalks of celery, two sprigs of parsley. Cut the meat from the bones, after which place the bones and half of the meat in a soup kettle and allow to stand for half an hour in cold water. Heat gradually and allow to simmer for six or seven hours. Brown the remainder of the meat in two tablespoonfuls of beef drippings and add with the other meat and with the vegetables chopped fine, when the kettle is put on the fire to simmer. After it has simmered the required time the stock is strained and set aside to cool, the fat being removed from the top. The stock is then ready for use.

Out of the brown stock may be made St. Julienne soup by the following process: In mak-

ing these soups, the stocks must never be allowed to boil, or at most must be brought only for a moment to the boiling point. For St. Julienne put one pint of the brown stock on the fire to heat, after which a pint of finely chopped vegetables (turnip, carrot, etc.), with half a teaspoonful of salt, should be put on with a little water to parboil. This being done, add the vegetables to the stock, season with half a saltspoonful of pepper. Vermicelli soup is made by adding half a cup of vermicelli to a pint of the brown stock. Cook the vermicelli for ten minutes in salted boiling water, season with a half-teaspoonful of salt and a half-saltspoonful of pepper, and add to the warm stock.

Consommé stock is to be made in exactly the same way as the brown stock, except that three pounds of the knuckle of veal are to be added to the meat, and all the meat is to be put in at once without browning. After the stock has been formed, in order to clear it, add the white and shell of one egg, the juice and rind of one lemon, beating them all up together; then put on the fire, bring to the boiling-point, strain through a sieve and again through a napkin, without pressure or squeezing, and serve.

For making chicken broth, take three pounds of chicken well cleaned, cover with cold water, boil from three to five hours (until the meat falls to pieces), strain, cool, and skim off the fat. To a pint of this add salt and pepper and two tablespoonfuls of soft rice, which has been previously thoroughly boiled in salt water; bring the broth to a boil. In preparing th e rice half a cupful should be boiled for thirty minutes, with a teaspoonful of salt in a pint of water. To make mutton broth, take one pound of lean, juicy mutton, chopped fine. —*Therapeutic Gazette.*

RECTAL ALIMENTATION IN CHILDREN.

Jacobi, in the *Archives of Pediatrics*, advises as follows:

The rectum absorbs but it does not digest. Whatever, therefore, is to enter the circulation through the lower end of the alimentary canal must be dissolved before being injected. Suspension alone does not usually suffice. Water can be introduced in quantities of from twenty-five to one hundred grammes (one to three ounces), every one, two or three hours, and may thus save life by adding to the contents of the thirsty lymph ducts and empty blood vessels. Salts in a mild solution will thus be absorbed. Food must be more or less peptonized before being injected. The peptones mentioned above are readily absorbed when fairly diluted. When too thick they are not absorbed, become putrid, and a source of irritation. Milk ought to be peptonized. The white of eggs becomes absorbed through the addition of chloride of sodium. Kussmaul beats two or three eggs with water, keeps the mixture through twelve hours, and injects it with some starch decoction. The latter is partly changed into dextrin. Fat, when mixed with alcohol, becomes apt to be partly absorbed. Andrew H. Smith recommends the injection of blood. Its soluble albumen, salts and water are readily absorbed, more we ought not to expect. Still, he has observed that the evacuations of the next day contained none of the injected blood. Whatever we do, however, not more than one-fourth part of the food required for sustaining life can be obtained by rectal injections, and inanition will follow, though it be greatly delayed. Finally, children are not so favorably situated in regard to nutritious enemata as adults. In these the lengthening of the nozzle of the syringe by means of an elastic catheter permits of the introduction of a large quantity of liquid; indeed, a pint can be injected, and will be retained. But the great normal length of the sigmoid flexure in the infant and child, which results in its being bent upon itself, prevents the introduction of an instrument to a considerable height. It will bend upon itself; besides, a large amount of contents will be expelled by the feeble or resisting young patient. When a solid instrument is used, it is apt to be felt high up in the abdomen. This is the result of a large portion of the intestine being pushed upward.—*Medical News.*

TREATMENT OF EPISTAXIS.

Dr. J. Robinson, of Kansas, speaking of the treatment of this affection in the *Therapeutic Gazette*, says:

It is a well known fact to anatomists and others, that the hemorrhage in the vast majority of cases proceeds from the septum-nares, and is supplied by a branch of the superior coronary, a branch of the facial, which ramifies in the septum-nares. It enters the opening of the nose just below the alae nasi, crossing the superior maxillary bone at that point.

Now, in a practice of nearly thirty years, I have had many cases of epistaxis, and have never in a single case failed to arrest the bleeding by compression of the aforesaid artery, with the finger applied over its track, making firm pressure against the bone. This will arrest the bleeding in nine hundred and ninety-nine cases in a thousand. I have been called to see cases when other physicians had plugged the nostrils, and injected solutions of ferri persulphas, ice water, etc., without benefit, and have at once arrested all hemorrhage instantly by the above simple means. Tell them to try it. —*South California Pract.*

BORIC ACID A REMEDY FOR STYE.

A simple and effective remedy for stye has been found by me to be a solution of fifteen grains of boric acid to an ounce of water. By applying this solution three times a day to the inflamed part of the eyelid, by means of a camel's hair brush, this painful and annoying affection will be conquered very rapidly.—*George Reuling, M.D., Baltimore, Md.*

FIFTY APHORISMS IN PREGNANCY.

Dr. E. J. Kempf (*American Practitioner and News*):

General Aphorisms.—1. The safest plan is to consider every woman, whether married or single, who comes to you for treatment, as pregnant until you have satisfied yourself to the contrary.

2. The physician or midwife should inform himself or herself all about the patient's former labors, general physical status, condition of lungs and heart, etc., the presentation and position and condition of the child, and the location of the placenta by external manipulation, several weeks before delivery.

3. To find day of confinement, take last day of menstruation, say February 10th, count backward three months to November 10th, and add seven days—November 17th. An exact reckoning of the date of confinement is impossible, errors of one or two weeks being sometimes made.

4. Direct the pregnant woman to: 1, keep the bowels regular; 2, that the diet be plain and nutritious; 3, to take frequent baths; 4, not to get cold or wet; 5, to take moderate exercise; 6, to do the usual light housework; 7, to be in the open air often; 8, not to worry or get excited; 9, that the dress should be warm, loose, and there should be no pressure on the breasts, waist or abdomen; 10 to wear an abdominal bandage; 11, to bathe the nipples in some astringent solution if they are sore; 12, to consult the family physician for any indisposition (Munde.)

5. Moderate coition is allowable during the first seven months of pregnancy, and fondling of the breasts and nipples by the husband during the latter months is advisable. (Späth, Geburtsenkunde, 1857.)

6. *Signs and Symptoms of Pregnancy.*—Morning sickness occurs during the end of the first month, the second and third months, and sometimes during the fourth and fifth months. Occurring after that it is probably abnormal. (Munde.)

7. Menstrual suppression is the rule during all the months. The menses may occur during the first, second and third months, rarely afterward. Conception may occur when menstruation is normally absent, as in young girls before menstruation is established, and after the change of life and during lactation.

8. At the beginning of the third month mammary areolæ become turgid. This is not a reliable sign, as it may occur in uterine or ovarian disease. (Playfair.)

9. Abdomen begins to enlarge during the third month, and becomes marked during the fourth, when the uterus rises three fingers' breadth above the symphysis pubis; during the fifth it occupies the hypogastric region; during the sixth it rises to the umbilicus; during the seventh two inches upward; during the eighth and ninth months it gradually enlarges until it reaches the ensiform cartilage. For about a week before delivery the uterus sinks somewhat into the pelvic cavity. (Playfair.)

10. Fetal movements start in at about the middle of the fifth month. These movements may be simulated by irregular contractions of abdominal muscles or flatus within the bowels. (Playfair.)

11 Ballotement will be of service at the end of the fourth month to the end of the sixth month. (Playfair.)

12. Uterine soufflé can be heard at the end of the fourth month, and until the term ends. (Playfair.)

13. Fetal heart sound can be made out during the fifth, sixth, seventh, eighth and ninth months. The pulsation is likened to the tic-tac of a watch under a pillow. Steinbach makes the beat 131 for male children and 138 for females, but this is not practical. The beat is most easily heard when the back of the child lies to the abdomen of the mother. An accelerated or irregular beat, preceding or during labor, means danger to the child. There is no relation between the fetal and maternal pulse.

14. The most valuable signs of pregnancy are fetal heart pulsation, fetal movements, ballotement and intermittent contractions of the uterus.

15. Miscellaneous signs of pregnancy are dusky hue of the vagina, dentalgia, facial neuralgia, tendency to syncope, salivation, unusual gratification during some particular act of coitus. (Munde.)

16. The unimpregnated uterus measures two and one-half inches, and weighs one ounce, at term it measures six times as many inches and weighs twenty-four times as many ounces. The cervix uteri does not shorten during pregnancy except during the fortnight preceding delivery, which is due to incipient uterine contraction. The cervix begins to soften by the end of the fourth month; by the end of the sixth month one-half is thus altered; by the eighth, the whole of it. The os is generally patulous. (Playfair.)

17. *Diagnosis of Pregnancy by External Manipulation.*—By inspection we may learn the general contour of the abdominal enlargement, whether it be of the usual pear shape or broader, as is the case with shoulder presentations. Where there are twins, side by side, there is usually a depression or sulcus between them, and the uterus is broader transversely. If the twins be placed one in front of the other, no difference can be noted in the breadth of the uterus.

18. By percussion we make out the outlines of the uterus.

19. By palpation we feel the outlines of the uterine tumor, the prominent parts of the child, the round, hard, bony head, the soft breech, the knees, the feet, the elbows, the round arched back and the movements of the child.

20. By auscultation we may learn the condition the presentation, the position, and the sex of the, fetus and the location of the placenta. (Wilson.)

21. The position of fetus is generally head

downward, and breech toward the fundus uteri. (Playfair.)

22. *Spurious Pregnancy.*—Pregnancy is simply by pelvic or abdominal tumors, obesity, ascites, tympanites, distension due to retained menstrual blood, amenorrhœa, etc. A careful physical examination is the only guard against a mistake. (Munde.)

23. *Abnormal Pregnancy.*—Extra-uterine gestation—early treatment, the faradic current, late treatment, laparotomy—is very dangerous. Molar pregnancy, be it hydatiform, carneous or spurious, calls for complete removal of the mass. Hydramnios may necessitate permature delivery. (Munde.)

24. *Disorders of Pregnancy.*—Vomiting of pregnancy, as a rule, needs no treatment, but, if excessive, it is relieved the quickest by the application of cocaine and vaseline (one in fifty) against the os uteri, and by one-sixteenth of a grain of cocaine, internally, frequently repeated. When vomiting of pregnancy becomes so persistent that it resists all treatment and threatens to destroy the pregnant female, abortion or premature labor may become necessary, but should never be undertaken without a consultation. (Munde.)

25. Anemia—the best treatment for this is good food, light air, exercise, iron and arsenic, and removal of the cause if possible.

26. Plethora may call for saline laxatives and restriction of albuminoid food.

27. In constipation direct a regular hour of the day for going to the closet, and give compound licorice powder, or cascara sagrada, or enemata.

28. Diarrhœa should never be neglected, as it may lead to abortion or premature labor. Give paregoric and tincture of catechu, or acetate of lead, opium and ipecac, and keep the patient quiet.

29. Leucorrhœa calls for vaginal washing with carbolized tepid water.

30. Pruritus, which may be general or local, treat with soda baths if the former, and, if the latter, treat with carbolic acid in glycerine, nitrate of silver in mild solution, cocaine in rose water, hydrate of chloral in water, etc.

31. Frequent micturition may often be relieved by an abdominal supporter. So also in incontinence of urine, Strychnia, belladonna, or cantharides may be tried in both troubles.

32. In varicose veins, besides applying a flannel bandage or a silk stocking, instruct the woman how to apply a compress and bandage in case of rupture of a vein, as the hemorrhage may be great.

33. Diabetes, albuminuria, jaundice, neuralgia, hemorrhoids, etc., during pregnancy, call for the same treatment as when occurring at other times.

34. Uterine displacements call for replacement, followed by the application of an appropriate pessary and supporter.

35. False pains may come on at any time during pregnancy, and cannot be told from true pains, except that the former are relieved by opium.

36. High temperature in the mother is not necessarily incompatible with fetal life.

37. *Immature Delivery.*—Abortion is the expulsion of the ovum before the formation of the placenta (twelfth week); miscarriage, its expulsion before the period of viability (twenty-eighth week); premature delivery, its expulsion between the twenty-eighth and thirty-eighth week. (Munde.)

38. Causes of immature delivery are predisposing, dependent on constitutional affection, and exciting, dependent on mechanical or emotional violence. Symptoms are pain and hemorrhage and dilatation of the os uteri. Dangers to mother from sepsis, fatal hemorrhage, perimetric inflammation, carneous moles. Dangers to child—want of viability.

39. Treatment is prophylactic by fluid extract black haw, and removal or avoidance of cause; preventive by rest, opium and black haw; and, in inevitable cases of abortion, empty the uterus and check the bleeding by rest and ergot, by tampon, and after dilatation of cervix by finger or dull curette. (Munde.)

40. Miscarriage should be treated like abortion, and premature labor like labor at full term.

41. Artificial abortion is best performed, up to the fifth month, by dilatation of the cervix with the steel branched dilator; it is done because, 1, persistent vomiting, 2, organic visceral lesion, 3, incarcerated uterus, 4, deformity of pelvis, 5, presence of large tumors. (Munde.)

42. Premature labor is best induced by catheterization of the uterus—not rupture of membranes, for 1, dyspnœa from enormous distention of the abdomen from any cause, 2, hemorrhage from placenta previa, 3, uncontrollable vomiting, 4, organic heart trouble, 5, habitual death of the fetus, 6, pelvic contraction of moderate degree, 7 hopeless condition of the mother, 8, where in previous labors there have been unusually large children. (Munde.)

43. *Fetus.* Fetus at first month is rarely to be detected in abortions. At second month it weighs sixty grains, measures six to eight lines, head and extremities are visible, eyes are two black spots on side of head, umbilical cord is straight, the calvicle and inferio rmaxillary bone begin to ossify. At third month the embryo weighs from seventy to three hundred grains, measures from two to three inches, forearm is formed, fingers can be traced, placenta is formed. At fourth month weight is from four to six ounces, length six inches, sex of the child can be made out. At fifth month weight ten ounces, length ten inches; hair and nails beginning. At six months weight one pound, length eleven to twelve inches; membrana pupillaris; eyebrows. At seven months weight three or four pounds, length thirteen to fifteen inches; eyelids are open; testicles in scrotum; clitoris prominent. At eight months four to five

pounds, length sixteen to eighteen inches ; nails ; membrana pupillaris has disappeared. At nine months weight six to eight pounds, length nineteen to twenty inches ; males somewhat heavier than females. (Playfair.)

44. *Signs of Death of Fetus.* Before labor the signs of death of the fetus are, 1, loss of fetal heart-beat, 2, loss of fetal motion, 3, sense of dull weight in the uterine region felt by mother, 4, sense of coldness in the womb, 5, putrescent fetor in the discharges, 6, discharge of flatus from the uterus.

45. *The Placenta Liquor Amnii, etc.* The placenta supplies nutriment to and aerates the blood of the fetus. It may be situated anywhere in the uterine cavity. The umbilical cord is the channel of communication between the fetus and placenta. The placenta at full term is a moist mass, containing a great deal of blood ; spongy in texture ; about seven inches in diameter, usually oval ; one surface smooth, facing the cavity in which the fetus lies, the other surface rough, fastened to the walls of the uterus. The color is reddish, but varies in tint according to the condition of the blood.

46. Liquor amnii is secreted by the amnion and the allantois, it affords a fluid medium in which the fetus floats, and so is protected from shocks and jars, it saves the uterus from injury from the movements of the fetus, and in labor it lubricates the passages. It has nothing to do with the nourishment of the fetus.

47. The uterine and placental murmurs are not usually taken notice of in the diagnosis of pregnancy.

48. Knots in the umbilical cord are brought about by passage of the child through a loop in the cord, generally during labor.

49. In twins, triplets, etc., there may be one placenta or more than one. If two fetuses, they may be joined by two cords to one placenta. This cannot be made during pregnancy.

50. So-called material impressions, monstrosities, marks, etc., are the result of arrest of evolution due to pressure by amniotic bands, pressure by the umbilical cord, adhesions of the placenta, or to some pathological condition of the fetus or its membranes, or to heredity.

THE HOT BATH IN THE TREATMENT OF SLEEPLESSNESS.

Mr. S. Eccles, in the *Practitioner*, states that to secure sleep by means of the hot bath, the following precautions have to be attended to:—The bath room must be heated to about 70° F., then the patient must be stripped in the bath-room, the head and face being rapidly douched with water at 100° F. By this means the body is cooled, whilst a rush of blood is sent to the head. Then the whole body, excluding the head and face, is immersed in the bath at 98° F. rapidly raised to 105° or 110° F. In about eight to fifteen minutes the patient feels a sensation of pleasant languor, when he must be wrapped in warm blankets, and proceed to the bedroom with as little personal effort as possible. By the time the bed-room is reached the moisture on the surface of the body will have been absorbed ; the patient must then put on his night-clothes and get into bed, lying with the head raised, hot bottles to the feet, and well covered with bed-clothes. No conversation or moving about the room should be allowed, and all light must be excluded. In a few minutes the patient will be found in a quiet, refreshing sleep. The theory of the method is based on the sudden exposure of the body contracting the arterioles of the skin, causing thereby a corresponding dilatation of the vessels of internal organs, which in the case of the brain is further induced by the application of hot sponging. The immersion of the whole body next causes a dilatation of the vessels of the surface, except the head and face, with contraction of the vessels of the brain and gradual slowing of the heart's action, thus placing the brain in the most favorable condition for complete functional rest. There are certain conditions, however, in which this method is contra-indicated. Persons suffering from anæmia or emaciation, or from aortic valvular disease, or in whom signs of atheroma are recognized, should not be subjected to such rapid variations of local arterial tension as this process entails. In such cases massage may give good results.—*Glasgow Med. Journal.*

"PYRIDINE TRYCARBOXYLIC ACID" AS A REMEDIAL AGENT.

BY DR. S. BRZOZOWSKI.

This compound has been lately introduced to the profession as an antipyretic and antizymotic. As the literature upon this medicine has been very meagre, I thought that probably my experience with this drug might be of some interest to the readers of your Journal as well as the profession at large.

IN TYPHOID FEVER.

In this disease I have given this drug a fair and impartial trial as an antipyretic. I always administer it in solution, and give ten grains every 3 hours, until the temperature is reduced from 103½ or 104½ to 101 or 101½, evening temperature.

Under this treatment the fever generally runs its course in twenty-one days, and leaves no bad sequels. I have never seen any unpleasant effects of this drug. It is agreeable to the taste,

the stomach retains it readily, it produces no cerebral disturbances; it is in fact all that can be desired in the treatment of this disease.

IN PNEUMONIA,

I also use this drug simply as an antipyretic, and since I have been using it I prefer it to verat virid, aconitum, tartar emetic, or any of the old remedies used for reducing the temperature. My reason of preference is that this drug will reduce the temperature, if given in large enough doses, and that it requires no watching, as it is perfectly harmless.

IN "BLOOD POISONING."

It frequently happens in practice that you are called to a case of 5 or 6 days after delivery; you find your patient suffering with pain in the abdomen, which is increased by pressure. By placing the thermometer in the axilla you find the temperature 104 or 104½. The countenance is indicative of great pain, the patient complains of great restlessness. Upon inquiry, you learn that the secundines have all been removed. Upon examination, you find nothing that is contrary to the statement of the midwife; but unquestionably some septic poisoning has taken place.

In these cases, you will find the pyridine tricarboxylic acid a great remedy, both as an antipyretic and antizymotic, if given in doses of ten grains every three hours. I treated cases like this where you would expect a puerperal fever, which got well in three or four days.

"PYRIDINE, AND PYRIDINE TRYCARBOXYLIC ACID."

There seems to be some misunderstanding in regard to these two drugs.

Pyridine is not Pyridine Tricarboxylic Acid. Pyridine is a liquid alkaloid that is miscible with water, and is generally found in bone-oil. But Pyridine Tricarboxylic Acid is a crystalline body, and prepared from quinine, by oxidizing the alkaloid completely with permanganate of potash.

If any doubt exists in the mind of the profession in regard to my statement, all I ask of them is to try the drug, and if my statement is not borne out in full, I stand corrected.—*Med. Herald, Louisville, Kentucky, January*, 1888.

THE PHARMACEUTICS OF ANTIPYRIN.

Antipyrin, although a fairly stable chemical body, undergoes decomposition in contact with certain substances, occasionally with an undesirable result. One of the most noteworthy incompatibles is the spirit of nitrous ether. This mixture gives rise to a green colour, and although the precise nature of the resulting compound is not known, a child suffering from a slight fever, to whom it was given, died shortly after with symtoms strongly pointing to poison. It is, therefore, highly desirable that this incompatibility should be made known as widely as possible.—*Medical Press.*

AN EXAMINATION FOR LICENSE TO PRACTICE.

The Board of Health of Dakota recently examined an applicant for a license to practice medicine. He had been practicing medicine for years in Dakota. Here are some questions and answers:

"What medical paper do you take, Doctor?"

"Well, I get along without them."

"What books have you in your library?"

"Gunn's Family Physician and Common-Sense Home Doctor."

"Name the three great cavities of the body."

"The head, the belly and the diaphragm."

"Name contents of abdominal cavity."

"Kidneys and the prostate gland."

"Have you treated any cases of enlarged prostate?"

"Lots of them."

"With what success?"

"Tiptop! never lost a case."

"Did you ever treat any female for enlarged prostate?"

"Oh, yes; numbers of them."

THE LAW OF THE DETERMINATION OF THE SEXES.

So many laws, founded upon insufficient data, have been advanced lately as determining the sex of the child, that we are led to give our own, which has been deducted after the compilation and careful examination of a vast quantity of statistics. If the mother, while pregnant, sees a bow-legged flea, with a wart on its left knee, the child will be a male. If the wart is on the right knee, a female. In case the flea is cross-eyed, and lacks its eye-teeth, these indications are reversed.—*St. Louis Weekly Medical Review.*

COCAINE IN ACUTE TONSILLITIS.

Recently I began to suffer from a very sharp attack of acute tonsillitis of the right side, with a considerable injection of the surrounding parts. Two days after I experienced the most excruciating pain in swallowing, also severe pain in the right ear, and I could only with great difficulty speak. In the afternoon of this day my friend Mr. Thomas swabbed out my throat three or four times with a four-per-cent. solution of cocaine, and poured a few drops of the same into my ear. The relief which I experienced was so great that I could soon after speak fairly easily, and swallow with very much less difficulty. I continued to apply the cocaine every two hours during the day with continued success for five days, then a day in the country, put me right.—*P. Rhys Griffiths, and British Med. Journal.*

THE TREATMENT OF BILIOUSNESS.

According to the *Boston Medical and Surgical Journal*, the treatment of biliousness is prophylactic, alimentary, and medicinal. Prophylaxis is concerned with avoidance of all the known causes, whether of a toxic, malarial, or alimentary character. A plain diet, of bread, milk, oatmeal, vegetables, and fruits, with lean meat or fresh fish in moderation, and abstinence from alcoholic stimulants, seem to be the ideal fare for the biliously predisposed. This kind of diet is especially applicable for hot weather, when albuminoids are apt to clog the portal system, and pastries are an abomination, and when a broiled schrode, a little chicken or a mutton broth, with bread and stewed fruit, will make a more healthful meal than the more sumptuous fare of a modern fashionable dining saloon. Exercise in the open air is of recognized utility in promoting oxidation and elimination, enhancing the digestive and assimilative processes, and lightening the burdens of the liver. Moreover, exercise (whether by rowing, horseback-riding, gardening, or walking) hinders absorption of bile by the hepatic venous radicals, and promotes the passage of that fluid into the duodenum, through the increased compression exerted on the liver by the diaphragm and abdominal muscles; this is in accordance with a recognized physiological law. The victim of an acute bilious attack will generally get righted in a few days by, first, abstinence from all food, then a diet of porridge and milk, or skimmed milk alone, and a very gradual return to solid food, which for several days should be restricted to toast, a little lean meat, or broiled fish, with some succulent vegetables or ripe fruit. As for medicines, saline aperients, such as sulphate of soda, Epsom or Rochelle salts in full doses in the morning, or the now fashionable tumblerful of Hunyadi Janos, will generally suffice to clear the *prima viæ;* the latter has especially a reputation for evacuating bile. The striking relief obtained by free bilious evacuations has often been remarked, and the veteran transgressor resorts to his blue pill or podophyilin with every recurrence of his malady. Of late enonymin has come much into use as a cholagogue. Harley recommends to persons who seem to have a more than usual tendency to biliousness, traceable to sluggish biliary secretion, and where there seems also to be defective nerve action, small doses of nux vomica or strychnia after their meals. This may be combined with belladonna and aloes as in the aloin, strychnia, and belladonna pill. The bilious person is generally constipated, hence such a pill has a special utility. Fothergill's pill of ipecac, capsicum, and pil. aloes et myrrh, has done good service in such cases. Nitro-muriatic acid and taraxacum have a reputation which is probably not altogether built on imaginary results. But bilious dyspeptics, while they should be attentive to the functions of eliminations (and doubtless the ancient predilection for purgatives has been justified by modern scientific research, which finds in intestinal septicæmias and alkaloids of putrefaction many of the evils formerly attributed to peccant humors and atrabiliary disorders) should aim especially to be good hygienists, and learn to live right; but this is counsel which everybody gives and nobody takes.

In obstinate hiccough, always suspect aneurism, and carefully examine for such.

Iodine is recommended by Professor Parvin as one of the best uterine hæmostatics and antiseptics.

Dr. Musser states that, after all operation on pelvic viscera, it is always well to make a routine practice of giving opium by suppository.

Uterine cancer, in the vast majority of cases, is of the cervix; sarcoma is of the body. One third of all cancers found in women are of the uterus.

For constipation in infants Professor Parvin recommends equal parts strained oatmeal gruel and milk. If this does not act efficiently he prescribes from 3 ss-3 j of sodii phosphas in twenty-four hours.

For irritable stomach of cholera infantum, Professor Parvin speaks highly of counter-irritation of epigastrium by means of mustard, and the internal adminstration of gr. v of bismuth with gtt. iij of aromatic spts. ammonia every hour.

For thread-worms, at night give gr. j of calomel and gr. ij-iv of santonin; the following morning inject a cleansing enema of water, and follow this by the infusion of quassia.

To properly examine a woman's breast, she should be lying on her back. If examined in any other position it can be so manipulated as to convert it into any tumour. When on her back, examine by pressing the tips of the fingers back through the breast against the chest walls, and not by pinching the structures up between the fingers.

Dr. Allis says the great secret of applying plaster-of-Paris bandages is to have all the sizing out of the material used, so when a piece of muslin to be used is thrown upon water it sinks readily; if it does this it will readily absorb water and plaster, and will set quickly; a little salt added to the water is an advantage; a roller made of lint is better than cotton to be applied next to the part.

THE TREATMENT OF TYPHOID FEVER.

Dr. J. C. Wilson, Physician to the Jefferson Medical College Hospital, treats his cases of enteric fever by the systematic use of laxative doses of calomel during the first ten days, and by carbolized iodine, as originally suggested by Professor Bartholow, throughout the course of the disease. The most careful attention is given to the details of nursing, dietetics, and hygiene, and symptoms are treated as they become prominent.

Due regard being had to the peculiarities of individual cases, the general plan is as follows :

Upon the evening of admission, the patient receives seven and a half to ten grains of calomel in combination with ten grains sodium bicarbonate, at a single dose. If the case be still in the first week, which is not usual with hospital patients, this dose is repeated every second night until its third adminstration ; if already in the second week a single dose only is given. After the tenth day it is given cautiously, or omitted altogether. If there be constipation, the first dose of calomel is followed by two or three large stools, mostly of the consistency of mush, the latter dose by stools decidedly liquid. Diarrhœa is not regarded as a con ra-indication. On the contrary, it almost always becomes less troublesome after the action of the mercurial. During the subsequent course of the disease, constipation is not allowed to continue at any time beyond the third day ; but is relieved, as a rule, by eight-ounce enema of warm, thin gruel, slowly injected, or exceptionally by a five or seven and a half grain dose of calomel, the choice being influenced by the character and prominence of abdominal symptoms. Under this plan of treatment diarrhœa is not commonly excessive. When necessary, it is treated by one-grain suppositories of the aqueous extract of opium.

From the beginning the patient receives at intervals of two hours during the day, and three hours during the night, and immediately after the administration of nourishment, two or three drops of a mixture of two parts tincture of iodine and one part pure liquid carbolic acid. This dose is administered in an ounce of iced water.

Unless the temperature exceeds 104° F., the fever calls for no special treatment, beyond cold sponging, which is practiced in every case at least twice in the twenty-four hours. A higher temperature receives prompt attention.

After trial of the list of new antipyretics, the choice is antipyrin. It is used in single doses of ten to fifteen grains, and repeated when the temperature again rises beyond 104° F. If this remedy fails of its effect, large compresses of several thicknesses extending across the chest and abdomen from the neck to the pubes, and freely wet with iced water, are used. The gradually cooled bath is held in reserve.

Alcohol has no necessary part in the routine treatment of enteric fever. Many cases do not require it ; some are unquestionably benefitted by it, while to a considerable proportion it is an absolute necessity. Dr. Wilson believes that the employment of alcohol in the treatment of fevers should be regarded, not as a dietetic, but invariably as a medicinal measure.

Space does not permit the discussion of the treatment of complications, nor of the management of convalescence. If perforation occurs during or after the period of defervescence, namely, in the fourth week or later, laparotomy should be performed.—*Medical News.*

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OVER CROWDING IN THE PROFESSION.

For several years past there have been appearing ominous warnings in the columns of the medical journals of Great Britain anent the crowded state of the profession there. Individual practitioners have been relating the indignities and hardships which they have had either to put up with or starve. Highly educated men with the very best diplomas and degrees have told how they were compelled to make visits, and even in some cases to provide the medicine as well, for the wretched remuneration of three pence. It might be said that they should not make visits for so little ; but if they did not there were plenty of others who were glad to make them for that rather than starve. When in England a year ago we took the trouble to make close inquiries into this question, and we were informed by many country practitioners and qualified assistants that they were treated by the public, their patients, in a manner in which they, the medical men, would not dare to treat the coachman. In fact, they said, the coachman was treated with a great deal of respect. We could easily understand the reason why. The coachman who was offended and left his situation was an employee who was very difficult to replace, while the highly qualified and educated assistant could be replaced a hundred times in a day without any trouble. The cash value of doctors, after all, just like gold, or silver or wheat, obeys the law of supply and demand. Just as the same wheat may be worth so much a bushel to-day and twice as much this day next year, so without any diminution in the intrinsic worth of the physician, his value as a necessity to the public may be very

much lowered or raised, by the mere fact that the supply of doctors is greater than the demand.

It is evident that such a state of things must lead to a terrible struggle for existence, and in that struggle the only wonder is that so few resort to disreputable practices. With hunger staring in the face himself and probably his wife,—for custom wisely exacts that the physician should be married —with very likely a large family to be provided for, for his knowledge of the results would prevent him from resorting to those means of limiting his offspring, which are unfortunately too frequently employed at the present day, it is not to be wondered at that he takes the three pence or sixpence when he can get it. Now, who is to blame for this state of affairs? Certainly not the man who has gone through a long and expensive course of training to fit him for a profession, in which he finds out only when it is too late that there are already too many. The ones who are to be blamed, we think, are the licensing corporations, which, for the sake of the money which it brings them in, are willing to sacrifice the welfare of the thousand by turning adrift every year several hundreds more practitioners than they well know there is room for. That they do so wilfully is evidenced by the fact that they have for so long been throwing every obstacle in the way of those schemes, which from time to time have been proposed for controlling and limiting the number of admissions to the profession.

In the United States the same difficulty seems to be arising, although, owing to the enormous expansion of the population, the evils of overcrowding will take longer to manifest themselves than in England. Happily in Canada we have as yet no cause to complain. So far, any one with average ability, who devotes himself heart and soul to his work, is pretty sure of obtaining a competence. But it is well that we should be prepared for the emergency when it arises. Let us therefore consider the means we have at our disposal for limiting the number of graduates. There are two ways of doing it. First, by raising the standard of admission to the study; and secondly, by making the pass examination more difficult. Of the two the former is, we think, much the better; for it is no hardship to turn a man back at the threshhold from a life of hardship and toil, while he is yet young enough to direct his energies into some other channel; but after having devoted four of the best years of his life to the study of it, it is an acknowleged hardship to tell him that he will not suit.

Let us insist upon our representatives on the licensing boards maintaining a high standard of preliminary education, so that when the student receives his diploma he may be a doctor in deed as well as in word.

GIRL DOCTORS.

On the much vexed question as to whether women should be allowed to compete with men for the practice of the medical profession, we have always held the opinion that no obstacle should be thrown in the way of their having a chance. If it is an easy way of making a handsome living, by all means we say women have as much right to it as men. At the same time on the question as to whether such women, whose mental endowments are such as to fit them for a physician's duties, are likely to have the necessary physical strength, is a question upon which we have always had our doubts. As the editor of the *Medical Times*, Philadelphia, says: "There are certain responsibilities which the physician,—man, or woman,—must assume. In no walk of life is a shirk more out of place. Office work and attendance on the wealthy make no serious calls upon one's strength, and as long as ladies' work is limited to these easy tasks, she may do very well." We commend the following case to which he refers to the attention of any lady who is thinking of entering our profession. A young girl of his acquaintance started out in her professional life, precisely as a young man must do. She had no means, and she began with the poor—"the alley folks." She took a poor district; turned out of her bed at night in all sorts of weather to visit the filthy denizens of the seventeen family house, and similar places; was cheated most unmercifully by those she served; and, in a word, did just what any young male physician in similar circumstances must do to get a start. He noticed her when she graduated as a bright, pretty girl, with so much intelligence that one could not help sympathizing with her desire to make of herself something more than ordinary. It was five years later when he saw her again. The struggle for existence had told heavily upon her; she had aged greatly, and her fresh, youthful beauty was gone, and hard lines on her face told of the severity of the struggle. She was disheartened and weary, and in less then six months more she was dead. He felt satisfied that she had died in the hopeless endeavor to show that women can fill men's place in the world.

ASEXUALIZATION AS A REMEDY FOR CRIME.

It is generally admitted that in our present methods of dealing with crime and criminals by imprisonment, we not only utterly fail to remedy the tendency to evil doing among the criminal classes, but by keeping people of varying degrees of badness closely associated together, we bring them all down to the level of the worst. So that, as a rule, the criminal comes out of prison very much worse than when he went in. It is also well known that the criminal tendencies of the father are transmitted to the offspring to a greater or less extent; and as there is nothing to limit the number of children a hardened criminal may leave behind him, the country is being burdened every year more and more with the support of these parasites on society. Although the honest citizen is protected for the period of the criminal's incarceration from the latter's depredation, still the former is punished as well as the criminal, for he has to work, not only for the support of himself and his own family, but he has to contribute largely toward the feeding and clothing of the burglar and his numerous progeny.

Moreover, under our present system, the cost of supporting the criminal class may be considered a fixed charge on the community. There is no hope of it ever being any less, but on the contrary it may be taken for granted that it will continually increase, and the worst of it is the honest and industrious have to bear the expense of raising a great generation of criminals who will in due time prey upon them. Another injury which the habitual criminal inflicts upon the working class is the competition of convict labor with free labor.

And yet a remedy for all these defects is easily found. Dr. Orpheus Everts, in an able article in the *Cincinnati Lancet Clinic*, recommends asexualization as a penalty for crime and the reformation of criminals. He formulates his propositions thus: "Surgical asexualization of all criminals convicted of offences that, circumstancially considered, indicate constitutional deformities that are recognized as transferable by heredity, is not only practicable but expedient for the protection of society against the ever impending danger of invasion by the savages of civilization, known as the vicious, criminal, or defective classes, —and would, properly enforced by law, eventuate in an effectual diminution of crime and the reformation of criminals."

There was a well known case recorded of one prostitute or female tramp, having left a progeny of over 150 criminals, including perpetrators of nearly every kind of crime in the calendar. Had she been spayed on her second or third conviction,—she was convicted a great number of times, —the country would have been saved the care of this small army of outlaws.

The writer terminates his article as follows: "Imprisonment alone for short terms at labor or in solitude, however cruelly or humanely practised with usual instruction or without, protects society but partially and for short intervals, and fails signally to reform the imprisoned or diminish the number of the classes to which they belong. Were each man or woman returned to society from penitentiaries deprived of reproductive capabilities, how different would be the story. Public sentiment might not now sustain such an innovation. The public sentiment of the future is destined to be more improved by science, and will eventually adopt its suggestions in matters of state craft and social economics, including criminal jurisprudence, as well as in other affairs of life."

THE CODE OF ETHICS OF THE AMERICAN MEDICAL ASSOCIATION.

ART. III.—*Of the duties of physicians as respects vicarious offices.*

1. The affairs of life, the pursuit of health, and the various accidents and contingencies to which a medical man is peculiarly exposed sometimes require him temporarily to withdraw from his duties to his patients, and to request some of his professional brethern to officiate for him. Compliance with this request is an act of courtesy, which should always be performed with the utmost consideration for the interest and character of the family physician; and when exercised for a short period, all the pecuniary obligations for such service should be awarded to him. But if a member of the profession neglect his business in quest of pleasure and amusement, he cannot be considered as entitled to the advantages of the frequent and long-continued exercise to this fraternal courtesy, without awarding to the physician who officiates the fees arising from the discharge of his professional duties.

In obstetrical and important surgical cases, which give rise to unsual fatigue, anxiety and responsibilty, it is just that the fees accruing therefrom should be awarded to the physician who officiates.

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VENTILATION OF OCEAN STEAMERS.

Read before the British Association for the Advancement of Science.

BY A. LAPTHORN SMITH, B.A., M.D., M.R.C.S. Eng.

Any one comparing the steamship of twenty-five years ago with that of to-day cannot fail to be impressed with the vast improvements which have earned for the latter the title of "floating palaces."

In some respects, however, there is still room for improvement, and in none more so than in the matter of ventilation.

That the ventilation of ocean steamships is, at the present day, far from perfect, is a fact which will be generally admitted by nearly every one who has crossed the ocean. Were any proof necessary I have the evidence of more than a hundred reliable witnesses, including several captains of steamers, whom I have questioned, as well as my own experience, to testify that this important department of the sanitary arrangements has not kept pace with the other profuse and elaborate provisions for the passengers' health and comfort.

Many have expressed the opinion that the feeling of discomfort and malaise is more often due to ship sickness than to sea-sickness; while I would venture to go a step further and call it by what I think should be its real name,—partial asphyxia or suffocation.

Many have told me that as long as they remained on deck they were perfectly free from any discomfort, no matter how much the vessel might be rolling; while others, who having succumbed to the first night's deprivation of air, were too weak to get on deck again during the remainder of the voyage, have assured me that weeks, and in some cases months, elapsed, before they had completely recovered from the effects of it.

My own experience was this: I crossed the Atlantic six years ago in the best steamer of one of the best lines, and having my choice of rooms I chose one amidships, on the main deck. It measured about six and a half by seven, by eight feet, and as I had the room all to myself it allowed me 364 cubic feet of space, less the amount occupied by my own body, two beds, a sofa and other furniture, and my valise; leaving about 300 cubic feet of air for myself.

I was obliged to keep my door locked and the regulations forbade the opening of the port hole. I did not notice however until next morning that the obliging steward had, at the request of the previous chilly occupant of the room, pasted paper over the tiny perforations at the top of the partitions, which were supposed by a flight of fancy to fulfil the purposes of ventilation.

But next morning my aching head and furred ongue made me realize that I was breathing an insufficiently oxygenated atmosphere, rendered poisonous moreover, with carbonic acid gas.

For all authorities on sanitary science are tagreed that the smallest quantity of fresh air consistent with health is 3000 cubic feet per hour for each adult human being; which would suppose that the air in my above mentioned 300

cubic feet of space was completely changed ten times in every hour. On the contrary it was not changed once during the nine hours I remained in my room.

Even if the perforations in the top of the partition had not been closed up, I could not have obtained the minimum amount of ventilation necessary for health, for we have no reason to suppose that such a heavy gas as cold carbonic acid could perform such a miraculous feat as to climb to the top of the partition and crawl through those little holes.

On the contrary, under the most favorable circumstances with natural ventilation, it is admitted that the air in a room cannot be changed oftener than three times in an hour. How utterly impossible, therefore, with similar means, to change ten times in an hour the atmosphere of a room so especially unfavorably situated for ventilation as a stateroom *below* or even *between* the decks of a ship.

What would have been the result if there had been, as the room was intended to contain, three occupants instead of one? I dread to think of it. Perhaps our fate would have been that of the seventy persons who were found dead next morning out of the one hundred and fifty passengers who were shut up in the cabin of the Irish steamer "Londonderry," during a stormy night in 1848. What must be the feeling of the emigrant, who according to the regulations of the British Board of Trade is allowed seventy-two cubic feet of space? Is the air in the "steerage" changed forty-three times in an hour, which it should be in order that each occupant of the above seventy-two cubic feet of space should receive the necessary three thousand cubic feet of fresh air? Manifestly not, since by natural means the air in a room can only be changed three times in an hour. If there are twelve hundred passengers below deck, as there frequently are, all night, they would require at last three million six hundred thousand cubic feet of air per hour, while ten funnels or ventilators one foot square, into which the wind is blowing at the rates of thirty miles an hour, would only deliver one million five hundred and eighty-four thousand feet, or nearly two million feet per hour, short of the requirements of health.

Professor de Chaumont says: "Air is the prime necessity of life. Food or water may be abstained from for a considerable length of time, and we may thus have an opportunity of replacing either should we doubt its purity or healthfulness, but the atmosphere around us we must breathe or die. Hence the paramount necessity of having it pure. But, he continues, though this is apparently so obvious, attention to its importance has been very generally omitted. I may add, that while defective ventilation has caused thousands of deaths on shore, the above remarks are especially true when applied to ships. For it is a well known and generally admitted fact that ship fever was due to the emigrants being compelled to breathe over and over again an atmosphere charged with organic matter in a state of decomposition; while only the thin walls of the vessel stood between them and an unlimited supply of the purest of pure air."

Although the Merchant Shipping Act of 1855, by forbidding the carrying of passengers in the hold, and by limiting the number to be carried on deck to one for every seventy-two cubic feet of space, put an end to such wholesale slaughter, still I think it is evident from what I have said, that with the present system of ventilation, that amount of space is only barely enough to sustain life, without even mentioning comfort or health.

But whether the ocean traveller gets even this small amount of space or not, is left very much to the discretion of the emigration officer at the port of embarkation, who may or may not understand the importance of a sufficient supply of air.

Should anyone doubt the exactness of the scientific experiments and calculations of the most eminent authorities, such as Richardson Parkes, de Chaumont, Hammond and others, on whose authority I have made the above statements, let him go down into the steerage or even staterooms of an ocean steamer, just arriving from sea, and his nostrils will testify to the truth of these assertions.

Dr. Heber Smith, in the United States Marine Hospital report for 1871, says: The sickness rate among seamen is probably greatly augmented by the want of light and air, and by the presence of dampness and filth so often observed in the forecastles of even the largest and best equipped sailing and steam vessels. Many of the forecastles which he examined illustrated the bottle form of ventilation, for where the hatches were closed, as they generally are in rough weather, the bottle was complete, even to the cork.

To these causes he attributes the constant deterioration going on in the ranks of the United States merchant marine and the lamentable short average of the mariner's life, which is only twelve years, seventeen thousand becoming unfit for service or dying every year.

" Is it any wonder," he says, " that there is a scarcity of efficient sailors? that vessels leave port short-handed every day? that shipwrecks and loss of life grow more frequent year by year?"

It is true the latest additions to the fleet of ocean steamers are provided with a considerable number of funnels or air shafts; but under the most favorable circumstances, that is when the wind is blowing against them, the air only gets into the passages into which the air shafts open, but not into the rooms; while on the contrary when the wind and the steamer are both going in the same direction and at about the same rate of speed, no air is forced down the ventilators at all.

Now, lest the owners and architects of ocean steamers might think that I was asking too much for the cabin and steerage passengers and seamen, whose supply of air is respectively bad, worse and worst, let me refer them to Wilson's standard text book on Hygiene, p. 90, where the author says that the Barrack Commissioners of England recommended a minimum allowance of six hundred cubic feet of space per man, but that experiments made by Dr. de Chaumont, Professor of Hygiene at Netley proved most incontestably that even this comparatively large allowance is inadequate for the purposes of ventilation. The author admits, however, that even so small a limit as one hundred cubic feet per man can be kept sufficiently pure, provided the most approved methods of artificial ventilation be carried out.

Having thus briefly shown the defects in the present method of ventilating ocean steamers, let me suggest a remedy.

Happily the latter is as simple and effective as it is important. For although any increase of cubic space for passengers and sailors would greatly increase the cost of carriage, the *number of times* in an hour that the air in that space could be changed, might be very considerably increased at a positively trivial cost.

Dr. W. G. Metcalf, Medical Superintendent of the Ontario Lunatic Asylum, Kingston, writes t me that the inmates of the main building to the number of three hundred and ninety are actually supplied, by means of a steam fan, with three thousand eight hundred and forty cubic feet of fresh air, each, per hour. And many other prisons and insane asylums on this continent are ventilated in the same way.

Now, I would ask, why could not a similar method be adopted on board ocean steamships? Their shape, resembling a box, completely closed on five sides, with only a few small openings in the sixth, precludes them from any possibility of being effectively ventilated by ordinary means. Why not, therefore, provide a fan blower worked by steam, and which could, no matter which way the wind blew, be relied upon to introduce into every part of the ship occupied by human beings, at least that amount of fresh air which accurate experiments, made by the most reliable scientists, have shown to be absolutely necessary for health.

I cannot believe that the question of cost would be any objection; for the same passengers, or the cabin ones, at least, who are so insufficiently supplied with air are most lavishly provided with every luxury; thousands of dollars being expended on decorations alone; and a surfeit of food being given every few hours during the day.

With the present system of ventilation on ocean steamships under the most favorable circumstances, the steerage passengers are not allowed more than two hundred and sixteen cubic feet of air per hour; while the inmates of the lunatic asylums and penitentiaries never receive less than three thousand eight hundred cubic feet of fresh air per hour, and no civilized country would permit them to be deprived of air to the same extent as the emigrants are.

The only objection that could be raised against the fan ventilator would be the draught; but that could be avoided by having inlet pipes perforated with a large number of small holes, and the speed and pressure so regulated that only the proper amount of air would be distributed and no more.

Such a fan, I am informed by a practical engineer, would cost the small sum of six to eight hundred dollars. It could be driven by all of the numerous small auxiliary engines which have to be kept in readiness for an emergency, such as pumping; while the necessary steam would not cost as much as one cent a day per

passenger; and if the distributing pipes were put into every part of the ship while it was being built, the cost would not be appreciable.

Moreover, such a fan blower would almost save its cost in a single voyage, for it could be utilized while the ship was loading grain, in doing all the trimming, which, on account of the dust, is a very unhealthy, and, consequently expensive operation. By means of a hose pipe attached to the fan blower the grain could be driven with great force away from the delivery pipe of the elevator, without a single man going into the hold.

Owing to the large development of the cattle trade during the last few years, the necessity for better ventilation is more than ever felt. Although the steamship companies do all in their power to have the steerage compartments thoroughly cleansed, still with the present system of ventilation it is impossible to completely get rid of the smell. Many emigrants have told me that the smell of cattle carried on the previous trip, added to that of the closely packed and half suffocated passengers, was simply horrible.

In view of the immense emigration now being directed towards our shores, and the responsibility which devolves upon us of seeing that the emigrants are provided for after their arrival; and considering how important it is that they should arrive here in a healthy instead of in a sickly condition, and in view of the light which science has shed upon the requirements of human life, it becomes a question whether the time has not already arrived for our Government to make such representations to the Imperial Board of Trade as will lead to a change being made in the Merchant Shipping Act, whereby a definite minimum amount of fresh air would be provided for every statute adult on board, instead of that important point being left as now to the discretion of the emigration officer at the port of embarkation.

The quantity of fresh air to be furnished to the occupants of the cabin and staterooms may safely be left to the force of public opinion, but I venture to predict that the company which would make a decided advance in this regard, would make a rich return for the small amount of money so invested. The travelling public would not be slow to appreciate the effort to supply them with a sufficient supply of the first necessary of life.

As a natural sequence to the first portion of my paper, I wish to call your attention very briefly to the question of warming and cooling the air which might be so plentifully provided by the above mentioned method.

There is no doubt that during several months in the year a great deal of real hardship and suffering is experienced by the emigrants and seamen who cross the Atlantic, owing to the absence of any regular system of heating.

During the time I was connected professionally with the Marine and Emigrant Hospital, Quebec, and other institutions, I have had hundreds of opportunities for observing the amount of sickness, suffering and death, especially among young children, directly traceable to the cold experienced on board ship during a Winter voyage.

Indeed any system of ventilation would be incomplete, unless combined with means of heating the air provided by it.

For the average emigrant or sailor would prefer to breathe the foulest of foul air, partially warmed, rather than the purest of pure air freezing cold. Indeed, scarcely a Spring passes without adding one or more to the list of sailors who have paid the penalty of their life for the warmth obtained from a charcoal pan. Nor would all this sickness and death be either difficult or costly to obviate if the method of ventilation which I have suggested were carried out.

"In the Insane Asylum at Kingston," Dr. Metcalf writes me, "the air passes in Winter over steam coils and becomes hot, the amount of heating to which it is subjected being regulated by adjustable valves." On steamers a zinc chamber or heater might be constructed around the boilers, through which the air could pass before being forced through the fan. Only in very cold weather would it be necessary to heat up the steam coils.

The openings for the admission of warm, fresh air should be near the ceiling, and the foul air openings near the floor, and these latter should be led into the smoke-stack or furnaces.

While the temperature on the Atlantic is generally too low, there are other voyages where the passenger is put to considerable discomfort from excessive heat. An eastern traveller in a recent paper states that average midnight temperature in the saloon and staterooms was one hundred and ten degrees F., most of the passengers preferring to pass the night on deck.

And yet how easy to remedy this state of things. By working the fan up to a high rate of speed so as to compress the air, and then letting it suddenly expand, it could be chilled to any degree desired; and the passengers, instead of being nearly roasted alive on deck, might remain below during the whole voyage, revelling in the delightful coolness of the temperate zone, while the air above and the water around them was simmering at one hundred and twenty degrees. To show that such a plan is quite practicable is made evident from the statement of the writer that he gathered a snow ball from the walls of the refrigerator, which was kept cold in that way.

It would, I think, be preferable to do with one dish or even one meal less each day for the luxury of a cool and well aired room to sleep in at night.

I have placed this matter very briefly before you, but I trust that the weight of the influence of such a learned body as the British Association for the Advancement of Science, which we are all so glad to welcome to this country, may lead to the further investigation of this important matter, so that the owners and architects of ocean steamships may recognize the evil, and device some remedy that will lead to some improvement in the ventilation of ocean steamships.

SULPHONAL.

By H. L. Reddy, M.D., C.M., L.R.C.S.E., L.R.C.P.L., Professor Midwifery, Bishops' College.

Or as it is known chemically diæthylsulfondimethylmethan. It occurs in the form of large, flat, colorless crystals which are tasteless and devoid of smell. Sulphonal is soluble in 18 to 20 parts of boiling water and 1 to 100 in tepid water. It dissolves more rapidly in alcohol or alcohol mixed with ether. Acids and alkalies do not affect the composition of the body.

Within the last few years a number of new remedies have been introduced, the action of which we have been told was unlike opium, chloral, cannabis, or the bromides. Most of these drugs belong to the acetal group of compounds, they include methylæ, acetophenon (known as hypnon), urethan, parædehyd, and hydrate of anylen. Although some of these have found favor with a few of the profession none of them are really satisfactory.

Sulphonal was first prepared by Bauman, who discovered it whilst investigating a series of bodies known as disulphones, to which it belongs. Its action (according to German authority) appears to consist merely in the intensification of those factors that lead to natural sleep in the physiological sense, or in supplying the periodical desire for sleep in those cases where it is wanting.

Sulphonal on the same authority is said to have none of the disadvantages inherent in deadly narcotics, and is more reliable than the Bromides. It does not disturb digestion, is not constipating, no unpleasant after-effects, is not likely to cause a "habit" even when employed for a long time. Schwalbe, in the *Deutsche Med. Woch*, concludes that:—

1. Sulphonal is an agreeable medicament, being odorless and tasteless.

2. It acts as a hypnotic in cases of "nervous" sleeplessness, in doses of fifteen to thirty grains. When the insomnia is the direct result of organic disturbances due to existing disease the action is more or less uncertain.

3. Sulphonal does not affect temperature, pulse or respiration, and is to be preferred to morphine and chloral when heart failure is to be feared. It is especially to be commended for children.

4. The subjective manifestations, immediate and subsequent, are insignificant, and not a contraindication for the use of the drug.

Dr. Rabbas has used it at the Marsburg lunatic asylum, over 200 times and speaks very highly of it.

The best time to administer it would appear to be the late afternoon or early evening hours, when it is followed by 8 to 10 hours of natural sleep. The dose is from 15 to 60 grains. The hypnotic effect is observed in from ½ hour to 2 hours after its exhibition.

Women are more easily affected by it than men. It is found useful in febrile wakefulness, in the restlessness of organic heart disease and even in the delerium of dementia.

Mr. T. E. Lovegrove in the *British Medical Journal* says that his experience has been very discouraging. For several hours after the exhibition of the drug, there was no appreciable effect, but during the greater part of the following day there was extreme drowiness and considerable cyanosis. Mr. Lovegrove finds the best vehicle for its administration is pulv. tragacanth co. and water.

ON THE REMOVAL OF OPACITIES OF THE CORNEA BY MEANS OF GALVANISM.

To the Editor of The MEDICAL RECORD.

SIR: The purpose of this note is to call, or rather recall, the attention of the profession to the therapeutic value of the Galvanic current in the treatment of opacities of the cornea. Some cases I have now under observation appear to show that this application of electricity has been allowed to fall into undeserved desuetude. I cannot offer yet complete results of treatment to support this claim, but the following statement may serve to show that it is worthy of some attention. In February last I began to use the galvanic current for the removal of an opacity of the cornea, without knowledge that it had been so used before. The case was one of recent macula of both cornæ, visible at a distance of several feet. It has now wholly disappeared from one eye, and is barely discernible in the other, from which I expect continued use of the remedy to remove all trace of blemish and defect of vision. Another case, taken up a few days later, a kidney-shaped macula about two and a half lines in length, is now represented by a thin speck-like spot which the patient and her friends no longer see. This, too, is steadily melting away. Of the seven other cases under treatment, it will suffice here to say that they varied in size from that of a millet-seed to the whole circumference of the cornea, from a nebula to a dense white leucoma, and in duration from forty days to forty-eight years.

All of these cases are steadily improving, two of the most extensive maculæ being merely fragmentary remains of the original, while the corneæ elsewhere are quite clear. The rate of disappearance seems to depend chiefly upon the size of the opacity, which, like a heap of snow, melts away from the periphery towards the centre, the oldest but little more slowly than the most recent.

The method I have employed is as follows: One pole of the battery in the palm of the hand, the other upon the closed eyelids, ordinary sponge-covered electrodes being used. If the eye is or becomes in the least congested on the seat of pain, the anode should be placed there; otherwise the cathode should be used as the therapeutic pole, its action being more rapid, apparently. The strength of the current should not exceed three milliampères, and with sensitive eyes a strength of two milliampères is better. The sitting should not extend beyond three minutes, unless the eye shows, after trial, unusual tolerance of the current; a five minutes' sitting sometimes irritates the organ. An application was made daily at first, but this was found to be too frequent—productive of irritation. Sittings are now held every other day without discomfort in any case.

A galvanometer and a smoothly-working galvanic battery are indispensable in this treatment. I am using Barrett's milliampère-meter and chloride-of-silver battery.

Very respectfully,

C. H. H. HALL,
Passed Assistant Surgeon.
U. S. NAVAL HOSPITAL, YOKOHAMA, JAPAN,

Society Proceedings.

NEW YORK ACADEMY OF MEDICINE—PEDIATRIC SECTION.

Meeting, June 27, 1888.

DIETETIC MANAGEMENT OF THE SUMMER DIARRHŒA OF INFANTS.

With much pleasure he had accepted the invitation of the Chairman to give his views on this question, which was one to which he had given much attention, having had a large experience in the treatment of the disease in Philadelphia hospitals and private practice. When called to treat a case of this nature, his first question was: what food has the infant been taking? As yet he was quite unable to believe that even in acute cases it was necessary to take away the milk of the mother or nurse. They continue to suckle the child, but the administration of water is very useful, as the child is often thirsty. Stimulation is of the utmost importance. Brandy or whisky, a teaspoonful three or four times a day, or thirty drops in sweetened water every two hours. As to other food besides mother's milk, if the milk of the mother is faulty, the nursing must stop and the infant be fed artificially. On the other hand, if the mother's milk is apt to be good, it might be supplemented with one-half ounce of beef juice or wine whey. As to the dietetic treatment of the summer diarrhœa in hand-fed children, the first thing is that the food be carefully investigated. The best food for hand-fed infants is cows' milk; if it disagrees, put the infant on the exclusive use of beef juice.

Cows' milk contains about three times as much casein as human milk. When cows' milk is diluted, the amount of fatty material is reduced, and therefore cream and sugar should be added. To undiluted cows' milk, too, sugar must be added.

Lastly, cows' milk is acid, human milk is alkaline. Hence, bicarbonate of sodium or lime water should be added, the latter being the best.

In the dietetic treatment of cholera infantum he depends upon milk foods mainly; diluted cows' milk with the addition of lime water has given the best results. Not more than two to four ounces should be give at each feeding, and we should take a lesson from nature in this respect. The amount of food should not be increased until the child is about a year old. It is also desirable to vary the food. It may be diluted, and cream and milk sugar added; if cane sugar be used instead, the quantity should be less. The addition of some starchy material, such as dextrin, is useful. One of the best is arrowroot; and barley water, as recommended by Dr. Jacobi, is very good. Mellin's Food has often proved most useful. In some cases excellent results are obtained from taking away all milk and administering beef juice alone, but many infants will vomit the soup as soon as given.

It is also necessary that precise directions be given how the infant should be fed, as to amount, frequency, etc. A young infant should be fed every two or three hours; older infants four to six times a day. Experience had brought the author to the conclusion that only in rare and exceptional cases is it either desirable or necessary to feed more frequently than every two hours. If collapse seems imminent, stimulants are very good. In dealing with summer diarrhœa, the treatment should not be changed before well ascertaining the result of the first measures. Often, if the physician had waited a few hours longer, he would have found that he held the key to the situation. Ripe experience of the physician will be better than great learning.

As to micro-organisms and the chemical poisons in the milk, it is a fact that milk and food prepared with it may become dangerous. The existence of the chemical poison in milk has been demonstrated, so has the micro-organism. But the time is not yet ripe for the acceptance of the theory. The arguments are strong against it. Infants are attacked though nursed directly by the mother, in whose milk no micro organism can exist. If we make no advance in our treatment, put the infant on an animal diet. The use of an exclusively animal diet is not new, but old. Certain cases will yield to it, in exceptional instances it fails; then we must return to milk. If micro-organisms were the only cause, no child would ever recover, and yet they continue to thrive under the milk treatment. If he were to accept the micro-organism argument, he should have to abstain from giving animal food; but then the difficulties are enormously increased; this no one will deny who has tried to feed on an exclusive meat diet. If vomited, we must try a mixed diet of milk and meat. The decision of the question: what constitutes cholera infantum? will often be very difficult.

If infants are taken from the breast, often they will not take it again. Continuing the assumption that micro-organisms are the sole cause of the disease, an animal diet must be substituted. It seems strange that as soon as an infant becomes ill, we must take from it that food which is best for it.

Dr. S. BARUCH read a paper entitled

A CLINICAL STUDY OF THE ETIOLOGY AND TREATMENT OF SUMMER DIARRHŒA OF INFANTS.

He said the season for cholera infantum was again upon us. There was a time when he dreaded the approach of summer. He had been taught to regard the disease as an inflammation, chiefly gastro-colitis, and to give minute doses of mercury. The inefficiency of this treatment showed that something must be erroneous. As long as he continued to look upon the disease as merely inflammatory, his severe cases died. He believed it to be chiefly due to the ingestion of micro-organisms. The theories hitherto prevalent were faulty, and have led to false methods of treatment.

The causes were: first, insanitary conditions, poverty, overcrowding; second, atmospheric conditions; third, bad feeding. The first causes prevail not only in cities, but under different conditions. He had observed the disease in rural towns, etc., in the backwoods of South Carolina, in Washington Heights and Audubon Park, and had found cases just as severe among the negroes of the South. While filth increases the mortality, the cause is due to micro-organisms.

Artificial feeding has long been accepted by the profession as a cause. Out of five hundred cases of summer diarrhœa, only a few occurred among breast-fed children. That had been ascribed to the difference between cows' milk and woman's milk, but this is an error. The chemical composition of cows' milk had been investigated again and again, and the difference shown. But if the artificial food was changed by addition, dilution, etc., we still find great difference in the toleration of the infant's stomach in summer and winter respectively. The researches of Esserich have shown that the great cry about cows' milk has no foundation. He had given casein in excess, and found it well digested. Healthy infants are capable of assimilating casein far in excess of their requirements. The author would not go as far as Esserich, for practically cows' milk is not so well adapted to infants as has been accepted. Yet the cause must be sought in another direction than in the difference of composition.

That high temperature exercises a powerful influence is true; in what manner does temperature change the prognosis? Its depressing effects are pre-disposing elements, but if this were the correct interpretation, it would not affect the clinical observation that the three factors act in unison, but their *modus operandi* has not been correctly understood. Why does cows' milk not cause disturbance in winter? The development of bacteria

is the cause in summer. It was first shown by Pasteur that the coagulation is due to the bacteria. The most important discovery was made by Lister, that a drop of sour milk added to urine produced a change, and that a drop of this urine again caused the souring of the milk. Owing to the presence of bacteria the proper breaking up of the casein is interfered with, the intestinal tract becomes inflamed and thus gives rise to summer diarrhœa. The author cited different writers in favor of this view.

This points the way to treatment: bismuth, mercury, etc., have given good results, while opium has failed.

We know the human milk is aseptic in the gland and is the best prophylactic. The best substitute is cows' milk, which is also free from bacteria as it comes from the udder. Milking is liable to introduce impurities, and foam, which is air with germs, is especially liable to catch any floating impurities. We had learned in other departments how important it was to prevent its access to the uterus. A milking tube would be useful, but it is not generally applicable, and the same might be said of goats recommended as nurses.

Next to preventing the access of noxious germs, sterilization of cows' milk must be good. Soxhlet's apparatus comes near to the requirements, and Caillé and others have simplified it. These gentlemen think, because milk does not sour, therefore it is sterilized. But it has been shown that this is not necessarily true. Continuous exposure for half an hour at 100° C. is not sufficient for sterilization. Hence Caillé's experiments were not quite as successful as Soxhlet's. Boiling the milk has been recommended by Jacobi as long ago as 1870. By this the casein is made more soluble and digestible. Various authorities corroborate this fact. He had convinced himself that milk could be certainly sterilized if the temperature can be raised to 266° F., under pressure, and a lower temperature will suffice if continued for a longer time.

The hygienic management of the infant is next in importance. This remark applies to all diseases due to micro-organisms. A daily bath is to be recommended, and a proper amount of undisturbed sleep is absolutely necessary; hence, fondling should be avoided. Teething no longer requires the use of the gum lancet, which could be laid on the shelf along with other useless instruments. Though the nervous system is irritated, the process is a natural one. In the way of prophylaxis, attention to the infant's mouth is important. In the mouth, germ-free human milk undergoes no change. It is advisable in the summer months to clean the infant's mouth with a weak solution of boracic acid. Sudden changes of temperature in August are best guarded against by a flannel bandage and sacque.

In the curative treatment, diminish or remove the bacterial supply. A wet-nurse should be employed where possible. The artificial food must be looked after. Barley water and meat broth are very excellent substitutes for milk. A solution of white of egg in water is also a valuable nutriment. The presence of the bacteria must be neutralized, and all fermenting material removed from the stomach. The stomach requires absolute rest. All food and drink must be withheld for five or six hours. After the stomach has been thoroughly cleansed—if rest does not bring relief—peppermint, etc., may be tried. A dose of calomel will generally be retained, and acts not as a parasiticide merely, but removes the bacteria from the canal. Castor oil will sweep them out, and large draughts of warm water will do it. A rubber catheter will answer if attached to the fountain syringe. The tube is anointed with vaseline, and introduced and retained until a quart of water has passed, the child being laid on the stomach. The thorough irrigation of the large intestines by the physician or competent nurse produces a most soothing effect on the patient; almost invariably quiet slumber ensues, even during the flow of the water. He cited J. Lewis Smith and L. Emmett Holt in corroboration of this fact. Local troubles should be met by local measures. Though he had used antiseptics, he did not think them advisable because they cannot be made strong enough; still the internal administration of antiseptics, naphthalin, etc., has found advocates. Bichloride of mercury and bismuth might be useful. He had abstained from medicinal treatment so as to maintain the integrity of the stomach.

Prostration of the vital powers is often pronounced. Elevated temperature marks generally a necessity for its reduction. He had not resorted to medicinal antipyretics. Cold baths will often change the aspect of the case. He cited a case in illustration of this point. Inanition, caused by diarrhœa, must be met by careful diet. Cows' milk, properly sterilized, will be useful, and the addition of dextrin and predigestion will be good. Warn mothers not to add milk to prepared food containing milk. He did not believe in Mellin's Food because it requires the addition of milk. Stimulants are good; whiskey and brandy are the best.

Opium was the only drug which will stop peristalsis of the bowels.

Dr. G. B. Fowler spoke on the

RELATIVE DIGESTIVE POWER OF THE PEPSINS IN COMMON USE, AND THE ACTION OF THE DRUGS EMPLOYED IN THE TREATMENT OF SUMMER DIARRHŒA UPON DIGESTION.

He gave a synopsis of the results of some experiments he had made with different pepsins to ascertain their digestive value. After briefly dwelling upon the mode of manufacture of the article, he stated that in view of the fact that each maker claimed that his product was the best, he

had procured thirteen different kinds from different houses. He had put one grain of each into a bottle and had added to each bottle eight ounces of acidulated water (hydrochloric acid and water of one-half per cent. strength). Twelve hundred grains of white of egg, coagulated by boiling and passed through a sieve and very finely comminuted, were added to each bottle. For comparison the first bottle had received only a charge of acidulated water and albumen without any pepsin. The bottles were exhibited. The results were very different from what might have been expected. Most of the pepsin seemed entirely inactive. He was very much surprised with the result obtained with the article made by Parke, Davis & Co., one grain of which had completely digested twelve hundred grains of albumen. Fairchild's was second best, but had not done quite as well. The rest manifested little or no power. It is claimed that this is not a fair test; that a more bulky precipitate may weigh less than one that is less bulky. But the speaker saw no difference in the physical characters of the respective residues, and it was very evident that in these experiments the more bulky invariably were the heaviest. He had used water enough for all the albumen to go into solution. Having ascertained the time required for digesting the entire amount of albumen, he had added some of the medicines we were in the habit of giving in summer diarrhœa,to see whether retarding effects were present or not.

Salicylate of sodium stops it absolutely. Somebody says it does so by fixing the hydrochloric acid: The quantity used was 20 gr.; even so small a quantity as 3 gr. retarded the process about two hours. Salicylate of sodium is very sparingly soluble in hydrochloric acid.

Quinine, 20 gr., there was no digestion; 3 gr. had no effect.

Mariani wine stopped the digestion.

Acetate of lead does not retard or interfere with the action of the pepsin.

Tincture of chloride of iron, 30 drops, hardens the albumen and clumps it up, and retards about two hours; 5 drops retard about 15 minutes.

Salol retards the action about one hour.

Antifebrin only slightly delays the action.

Antipyrin had no effect.

Chalk mixture completely arrested the action (quantity added, a teaspoonful).

Calomel, no effect.

Bismuth sub carb., 20 grs., no effect.

Tincture of kino, copious precipitate of the pepsin and arrest of action.

Tincture of catechu, same effect.

Dr. Caillé said he had several times expressed his opinion, and did not wish to take up the time of the section. He was well aware that milk is not scientifically sterilized by the boiling usually practiced. It was a well known fact that one child will thrive on undiluted milk, another on diluted. In view of the intricacy of the whole subject, he thought collective investigation would be a good way to solve the problem.

Dr. Hutchison thought Dr. Fowler would not get the same results if he were to repeat the same experiments. He had made six experiments with the best pepsins in almost the identical way Dr. Fowler had done, but his results had been very different in order of their merits. Parke, Davis & Co.'s was far below any experimented with. Fairchild Bros. & Foster's was found satisfactory. Pepsin is a very variable product, and little reliance should be placed on such experiments. No two specimens of the same manufacturer would give the same results.

He expressed his appreciation that different observers could come to similar results, referring to Dr. Baruch's statement as to the chemical analysis, showing the difference between human and cows' milk, and we know that it will nourish our babies in winter. But in summer our milk commences to ferment, and trouble begins. The boiled milk should be filled into a number of small vials, each of which is to contain only enough for one feeding. His experience would corroborate all that Dr. Meigs had said about adding cream to the milk, and he had carried it out for a number of years.

Dr. Harwood had been very much interested in the papers read, and very much surprised that in reference to artificial food nothing had been said about condensed milk. It was his experience and belief that of all the foods procurable none could equal condensed milk, for the reason that it had been heated to a temperature destroying any bacteria. Sugar has also been added. It has not been subjected to the churning process on the railroad that would render it unfit for continuous and regular feeding. In all his practice, extending over a number of years, all the children he had become responsible for had been nourished with condensed milk, and in his own personal experience and family, when the mother's milk failed, the baby was brought up on condensed milk. He had never failed to recognize the value of the addition of an alkali to milk, lime water being the one added, and the quantity used for diluting one-third that of the milk, and boiled. He had taken the trouble to visit Putnam County to learn the process of condensing before using it.

Dr. Jacobi said he would strenuously object to condensed milk. Those who had done him the honor of reading his writings would agree with him.

In reference to the pepsin experiments he thought no one present at the meeting had ever given 30 drops of tincture of iron. Muriate of iron in small doses, though in large quantity during the day, does no harm. Whoever had given it in diphtheria would appreciate that fact.

One more point was of the greatest possible importance. Dr. Fowler had stated that the digestive process was interrupted by the carbonate of lime. That is important to know, though it is quite natural that it should do so and does it in the stomach. We give it to a sick child which does not secrete the normal amount of lactic acid, later

hydrochloric acid, and if you pour it into the stomach, digestion is interfered with. Alkalies ought not to be given immediately after eating; they will neutralize the normal acids after eating. Bicarbonate of sodium has different properties. When it is to be given it must be done before the administration of food. In an abnormal stomach there is an amount of abnormal fatty acids, and we give an alkali for the purpose of neutralizing these acids, and then it will do good. Give alkalies before food is taken, then the stomach is free from the fat acids. It is quite possible and physiological to give an alkali before meals, and still given pepsin afterward.

Dr. MEIGS said he was somewhat surprised to learn that diarrhœa was rare in hand-fed children in winter. In a foundling institution with which he is connected, one of the worst troubles is diarrhœa. Diarrhœa is not at all uncommon in winter, especially in improperly hand-fed children. Past clinical experience seems to be tending in this direction, that cows' milk should be diluted, and, also in favor of the addition of fat, say cream, which adds to the good effects. When he found that analysis of human milk would seem to show that dilution of cream to cows' milk was necessary, it seemed a strong argument, backed up by chemistry and clinical experience.

Dr. BARUCH said his statement as to the non-occurrence of diarrhœa in winter referred to the serious form; that occurring in winter is not often fatal.

Dr. MEIGS: A good many cases of death were from diarrhœa. They were children of the poorest classes of society, generally in bad health when first seen; they have diarrhœa when first admitted, and die.

Dr. BARUCH: As to condensed milk, I would like to ask the doctor how much water he adds.

Dr. HARWOOD: My method is, three teaspoonfuls of the condensed milk from the cans to a half pint of water; one-third of that water is lime water.

Dr. BARUCH: Condensed milk, even Borden's and the Swiss brand, would have to be diluted one-sixth if you dilute it as stated. Where would the nourishment come in? And you give a large amount of sugar likewise. I think condensed milk is the most pernicious food.

Dr. FOWLER: In regard to the value of these experiments. Those pepsins were bought out of the shops, and if they cannot digest any more albumen than appears here, they must be very weak. Saccharated pepsins would be still weaker. As to Parke, Davis & Co's pepsin, it was ascertained that it had been prepared by a new process, and had been only recently put on the market. The practical application of the results I leave to yourselves. It is well not to give these remedies during digestion. The curd that forms may set up conditions which may give you trouble.—*Dietetic Gazette.*

Progress of Science.

THE DIAGNOSTIC SIGNIFICANCE OF HEMATURIA.

Robert Saundby, M. D., Edinburgh, F. R. C. P. (Lond.), in the *British Medical Journal* writes: Hematuria is a symptom common to a number of pathological conditions which differ essentially in their seat, nature, and relationships. In many of these it is a prominent, in not a few of them the sole prominent symptom, while its differential diagnosis is beset with difficulties, not only from the multiplicity of causes, but from the fact that there are a certain number of cases which can only be attributed to causes still unknown, or at best very obscure.

Blood may appear in the urine in a corpuscular or non-corpuscular form. The latter is called hemoglobinuria to distinguish it from corpuscular hematuria.

Detection of blood in the Urine.—The diagnosis of the presence of blood coloring matter in the urine may be made by (1) the eye, (2) the microscope, (3) the guaiacum test, (4) the spectroscope; but the microscope alone is capable of differentiating hematuria from hemoglobinuria.

It has been maintained by Dr. Wickham Legg, an author who has written ably on several of the obscurer problems of clinical medicine, that the blood corpuscles get broken up after the urine is secreted. He maintains that if the urine is examined immediately after leaving the body, corpuscles can always be found. My own observations, which I have had the opportunity of making under the most favorable conditions, do not support this view. Hayem has found free hemoglobin in excess in the blood serum, while in the well known icteroid coloring of the skin and conjunctivæ, which sometimes appears, supports the view that the hemoglobin is set free in the blood before it appears in the urine. I shall have to refer to this matter again, and I believe I shall show that Dr. Wickham Legg is so far right that hemoglobinuria, as distinguished from hematuria, is not always present in the group of cases where chilling of the surface appears to be the essential factor in the production of attacks of bloody urine.

Having premised the necessity of microscopic examination for the differentiation of corpuscular from non-corpuscular hematuria, it may be broadly stated that blood in the urine, when in any quantity and chemically unchanged, presents a very characteristic appearance not likely to be overlooked or mistaken for anything else. But when the urine has remained some time in the bladder, the bright red color becomes changed to a dirty brown, giving to the urine a porter color if present in quantity or smoky tinge when in less amount. This change is due to a chemical alteration of the hemoglobin, which becomes

converted into methemoglobin by the action of the acid urine. Such dark urine may be confounded with that caused by other dark pigments, such as indican or pyrocatechin, which occasionally are present.

Unaltered blood in small quantity is not very visible; but by inspecting the urine in a glass with a good light we can recognize, not only its peculiar color, but its characteristic dichromism, that is, by reflected light it appears red, while by transmitted light it is green.

The microscopical search for blood is so well understood now by all practitioners that it needs few words. If traces only are present, the lowest stratum of urine should be examined after standing some time. The corpuscles undergo many changes in urine, swelling up so as to lose their biconcave form, or shedding their hemoglobin, by which they alter in shape, appear vacuolated, and ultimately colorless. Such colorless disks may possibly be confounded with discoid oxalates and torulæ, but both these are smaller, the latter containing bright nuclei and being generally oval.

The main purpose of this paper is to deal with renal hematuria, but the difficulties of differential diagnosis are so great, that I should be wanting in honesty if I dismissed as foreign to my subject those cases which depend upon other causes. I must, therefore, at the risk of trespassing upon your patience, attempt to grapple with the subject in its entirety.

I think I may content myself with the bare statement of the fact that the urine of women is bloody during menstruation, or whenever there is vaginal or uterine hemorrhage. Hemorrhage from the urethra may be caused by villous growth, or in consequence of local congestion or injury. The blood is bright red, appears independently of micturition, or is not mixed with the stream, but occurs at the beginning or end of it, and is often accompanied by local pain or other symptoms.

Hemorrhage from the bladder may be caused by stone, prostatic disease, villous or malignant growths, cystitis, ulcer, parasites (Bilharzia), etc. In stone, prostatic disease, and cystitis, the diagnosis is not difficult, as these conditions have well-marked symptoms. The first two can soon be excluded by physical examination, while parasitic ova may be recognized by the microscope. But ulcer and growths in the bladder present peculiar difficulties, which may long baffle diagnosis.

We may commence by excluding the kidneys. Hemorrhage from the renal substance reveals itself by blood casts of the urinary tubules, but hemorrhage from the pelvis has no such constant sign, though casts of the ureter may be found. Renal hemorrhage is usually accompanied by local pain, while the history of injury, a blow, passage of calculus, etc., may help. Hemorrhage from the bladder is usually associated with some degree of cystitis and local pain, frequency of micturition, etc. By passing a sound or lithotrite, fragments of growth may be obtained or an irregular ulcerated surface detected. Washing out the bladder may afford useful aid in obtaining fragments of the villous growth.

In women urethral dilatation and digital exploration constitute a safe and easy method of examining the inside of the bladder, while in males, after due consideration, an exploratory cystotomy may be performed. Above all, in these cases medicine must seek the aid of surgery, and surgery of medicine, or grave errors of diagnosis and treatment will be made. This remark applies to many other forms of hematuria, as we shall see.

Renal Hematuria.—Sir William Roberts, whose admirable book on Urinary and Renal diseases is by far the most valuable work on the subject in this or any other language, divides the causes of hematuria into three groups: (1) local lesions; (2) symptomatic; (3) supplementary; and adds: "Cases also occur which are not referable to any of these categories of which the origin is extremely obscure." This is his list:

1. *Local lesions.* External injury, violent exercise, calculous concretions, ulcers, abscesses, cancer, tubercle, parasites, active or passive congestion, Bright's disease.

2. *Symptomatic.* In purpura, scurvy, eruptive and continued fevers, intermittent fever, cholera, etc., mental emotion.

3. *Supplementary or vicarious.* To menstruation hemorrhoids, asthma.

In one or two instances these may refer to other than real lesions, but the list is a useful one to modify and extend for our purpose, thus:

1. *Local lesions.* External injury, twisted or movable kidney, calculus, tubercle, cancer, syphilis, embolism, parasites, congestion, Bright's disease.

2, *Symptomatic.* Blood diseases (purpura, scurvy, hemoglobinemia, leucocythemia) specific fevers, malaria, cholera.

3. *Toxic.* Turpentine, cantharides.

4. *Neurotic or vicarious.* Hysteria, insanity, asthma, menstruation, hemorrhoids.

External injury causes laceration of the kidney substance, which, if extensive, may call for extirpation of the organ; in most cases the wound heals, and recovery takes place. The diagnosis presents few difficulties, and the treatment must depend upon the amount of hemorrhage, which, if great, will cause a tumor in the flank from effusion into the neighboring tissues. The treatment must be rest, an ice-bag to the part, ergotin subcutaneously, and in the last resort extirpation.

Movable kidney. Closely connected with the foregoing are cases of persistent or intermittent hematuria dating from a blow or fall. It is supposed that the organ is partially displaced and rotated on its horizontal axis, so as to twist the vessel at the hilas, thus compressing the vein, and causing passive congestion.

The employment of an efficient bandage is of the utmost importance for the successful treatment of these cases. The following description of a suitable appliance is from a paper by Dr. Apolant (*Deutsches Med. Woch*, No. 41, 1886):

"The bandage used to reduce the kidney was simply a belt fitted to the abdomen, with appendages of India rubber webbing, so arranged as to grasp the hypochondrium. To prevent its slipping up, two covered India-rubber gas tubes secured it to the thighs. Inside the bandage, in a position somewhat below the normal position of the kidney, a firmly padded convex leather cushion, somewhat larger than the fist, was fixed, which exercised pressure on a considerable area of the abdomen over the very yielding intestines. This pressure, while being pretty strong and constant, must be of such a nature that the abdomen can expand and contract during breathing. This is effected by the India-rubber."

Calculus. A medical friend of gouty habit, and a great sufferer from oxaluria, was getting into his brougham one day, when his horse started and flung him on the back seat in such a way as to bring on an acute pain in the left loin, as if he had strained a muscle. Later in the day he vomited, and the pain was so great at night that he took opium to relieve it. The urine became bloody. In the course of twenty-four hours he passed a small oxalate of lime calculus, and his trouble ceased. This case shows that hematuria after a strain or blow may be caused by the displacement of a calculus, which had formerly occupied some position in which it gave rise to no symptoms. Had the stone not passed, the cause of the hemorrhage would have remained obscure, or it might have been put down to partial displacement of the kidney. The symptoms of renal colic are tolerably characteristic. The pain shooting down towards the groin, with vomiting, and retraction of the testicle, are not met with in any other condition. It is noteworthy that the pain in biliary colic does not pass downward to the abdomen, but radiates round the thorax, and is specially localized at a spot below the right shoulder blade. A medical friend, whom I recently attended for biliary colic, tells me that the worst pain of all was a feeling as if three or four vertebræ were being gripped by a pair of pincers. Confusion between these two conditions is impossible if hematuria is looked for and relied upon, as I believe it may be, as a constant symptom of renal colic, but it may not always be present in quantity sufficient to reveal itself to inspection with the naked eye. Conversely I hold that the diagnosis of calculus in the kidney is incomplete until hematuria has occurred.

It may be contended that the negative results of operation do not absolutely exclude calculus. In a case, treated at one of our hospitals I believe, a stone was passed *per vias naturales* after an exploratory incision had been made without success, so that we must allow that even surgeons are fallible, and we know that a stone of small size may give rise to marked symptoms without getting into the infundibulum.

Tubercle. Hematuria in tubercle is accompanied by pus and shreds of renal tissue. Tubercle most commonly causes pyelitis, and there is much more pus than blood in the urine. The diagnosis of tubercle depends mainly on the evidences of tubercle elsewhere and on family history.

Cancer. Hematuria is not always present in cancer; when it is, it is very profuse. The diagnosis in some cases is easy, as a tumor may be felt, and deposits in other organs can be made out. Microscopic examination may show characteristic cells, but this can not be relied upon. In some cases the differential diagnosis from calculus is very difficult. The hemorrhage is, perhaps, more profuse and persistent. The subjects of cancer may last a long time in fair health; one patient of mine had suffered from hematuria for four years before I saw him, and lived quite two years afterward. Mr. Chavasse made an exploratory incision, under the belief (which I shared) that he had a calculus. He recovered from this and died some time afterwards, the *post mortem* examination, proving that calculus was not present, and showing cancer of the kidney and liver.

Syphilis. Gummatous deposits in the kidneys are well known in the *post mortem* room, but their clinical phenomena have not been fully made out.

Embolism. Embolism of the kidney is not an uncommon accident in heart disease, especially in vegetative endocarditis, also in pyemia. Hematuria occurring under these conditions may safely be attributed to embolism.

Parasites. Hydatid cysts in the kidney cause hematuria, and can only be recognized by the passage of fragments of hydatid membrane in the urine. Bilharzia hematobia, which generally attacks the bladder, may occur in the pelvis or substance of the kidney, and manifest itself by the characteristic ova and embryos in the urine.

Congestion. Congestion may be active or passive. Active congestion is often only the initial stage of acute inflammation, a condition which very rarely attacks healthy kidneys, except during the course of acute specific diseases; for example, scarlatina, diphtheria, tonsilitis, typhoid fever, etc. But such congestion also occurs when the functions of the skin are seriously interfered with, as by extensive burns, or more commonly by chilling of the surface, as in bathing, exposure to cold, etc.

A few years ago a young man consulted me, saying that he believed he was passing blood. He had been to a swimming bath, and after returning home noticed his urine was bloody. This was on Saturday, and on Monday, when I saw him, the urine contained only a trace of blood. By Wednesday the urine was normal. This patient told me that his brother had consulted Dr. A. H. Carter for hematuria following exposure to wet after playing foot-ball.

Passive congestion. Venous engorgement, consequent upon liver, heart, or lung disease, may

cause slight hematuria. The condition is easily understood and readily recognized.

Bright's Disease. In acute nephritis more or less hemorrhage occurs, and persists throughout the acute stage. The diagnosis depends upon the other evidences of Bright's disease; for example, dropsy, and the presence of epithelial casts in the urine. In chronic Bright's disease hemorrhage is not constant, but may occur at any time. The amount is usually moderate, but in rare instances may be alarmingly profuse and fatal. The recognition of the nature of the case depends on the presence of casts in the urine and other confirmatory signs, such as polyuria, low specific gravity of urine, cardiac hypertrophy, high arterial tension, albuminuric retinitis, etc.

Symptomatic Hematuria. Hematuria occurring in connection with specific diseases, such as yellow fever, malarial fever, and cholera, or in the course of blood diseases, such as purpura, scurvy, and leucocythemia, depends for its correct diagnosis on the recognition of these diseases, each of which possesses well-marked symptoms and definite clinical relation. But this is not the case with hemoglobinemia, which demands special attention. This condition consists essentially in the dissolution of the red blood corpuscles in the body, and the presence of free hemoglobin in the liquor sanguinis. Under these circumstances the hemoglobin escapes through the Malpighian tufts, and appears in the urine. The determining causes of this change are not clearly known. Certain poisons have this property of breaking up the blood corpuscles by direct action upon them. In certain septic conditions, puerperal fever, pyemia, etc., hemoglobinemia occurs. Physiologists now believe, but it is not formally established, that the red blood corpuscles are broken up and converted in the liver into bile pigment. It is supposed that in disease this process is interfered with, the destruction taking place in excess of the power of conversion, or the process stopping short at the stage of destruction. Paroxysmal hemoglobinuria occurs as an independent disease.

It is noteworthy that many of the reported cases of hemoglobinuria have been ascribed in their first onset to a fall or blow on the back, though a chill is always the determining cause of subsequent attacks. The disease has been said to depend upon syphilis, but in what way is not explained. The strongest argument in favor of this doctrine is that one patient lost his liability to attacks on antisyphilitic treatment. But the force of this is modified by the knowledge that though some cases are very obstinate, others recover of themselves. One case specially is known to me in which no attack has occurred for several years, though no special treatment has been followed, except care to avoid as far as possible exposure to chills.

It is worth bearing in mind that albuminuria is occasionally persistent in these cases, and Dr. Ralfe believes that this is due to a permanent inability to dispose of the albuminous material set free by the destruction of the red blood corpuscles. But if this were true the albumen excreted should be globulin, not serum albumen, a suggestion already made some years ago by Sir William Gull; and I have endeavored to test the truth of hypothesis, but my analysis always showed that serum albumen was present as well as globulin. I should be very glad to see this point investigated by so competent a chemist as Dr. Ralfe.

Toxic Hematuria. Hematuria may follow the application of a fly-blister, or the internal administration of cantharides. The latter is seldom practised, but the drug has been recommended on quasi-homeopathic principles by Dr. Sidney Ringer for nephritis, and in that condition I have seen it even in one-minim doses cause distinct hematuria. When given for criminal purposes the dose is usually large, and the hematuria is accompanied by strangury, vomiting, and symptoms of irritant poisoning. Turpentine does not usually cause hematuria, though the readiness with which the violet odor appears in the urine shows that it is absorbed and excreted by the kidney. I have had one very interesting example of hematuria due to this cause, in a varnish maker who was sent to be examined for life insurance. He seemed a perfectly healthy man, but after he had gone I examined his urine, and found it contained a little albumen. I then noticed the odor of violets, and closer examination showed that albumen was due to the presence of blood. There were no other evidences of renal disease, but there was certainly some special susceptibility to the action of turpentine, as this gentlemen informed me that he was not personally engaged in the manufacturing process, though he was much about the factory. I tried to follow up the case, but could not, as he abandoned the proposal.

Narcotic and vicarious Hematuria. I have no personal experience of these conditions. Laycock (Nervous Diseases of Women, p. 229) mentions hematuria as not uncommon in hysteria, but I have not yet recognized a case, though I have certainly met with one or two cases of hematuria in women which I have not ventured to class in this paper. Sir W. Roberts mentions menstruation, hemorrhoids, and asthma as conditions in which vicarious or supplementary hematuria occurs, but I can only quote him, and leave the matter without further comment, as I have never met with such cases. Dr. G. H. Savage states that hematuria may occur spontaneously in acute mania and general paralysis.

Treatment A very few words as to the general treatment, which must be specially regulated in each case by the cause. Undoubtedly hematuria usually passes off by rest, after a shorter or longer time, independently of drugs. But, as we have seen, there are persistent cases in which we are bound to do our best, and ample opportunity is afforded for trying all known remedies. My ex-

perience has been that they are all very untrustworthy, and I hesitate to give the preference to any one. Acetate of lead, ergot, hamamelis, gallic acid and perchloride of iron should have a fair trial. In hemoglobinuria a ten-grain dose of quinine should be given at the commencement of the attack, and five grains three times a day, till convalescence is established. Chloride of ammonium, recommended by the late Dr. Warburton Begbie, has never been followed in the hands of others by the fortunate results he obtained.—*British Medical Journal.*

REVIEW OF THE RECENT PROGRESS OF ELECTRICITY.

By Charles H. Merz, A.M., M.D., Sandusky, O.

Columbus Medical Journal.

The object in writing this paper is to give a concise outline of the present state of knowledge of electro-therapeutics, and to serve as an article for reference on the subject.

The main facts concerning the application of electricity to the cure of disease have been collected from reliable sources, and are arranged in alphabetical order without any unnecessary explanations.

Particular pains have been taken to state the strength of the current in milli-amperes whenever possible, as accurate current measurement is absolutely necessary to the scientific use of electricity. Many writers speak of using twenty-five and thirty cell currents about the brain, which would be impossible if such battery were generating the current it should. But few patients can tolerate a current of more than two to five milli-amperes about the head. This fact alone would make it desirable that a definite strength be established for each condition—thus making the dosage of electricity uniform.

The strength of a current may be roughly estimated without a milliampere meter by placing the needles in some white of egg. Robin states that a current of 45 milliamperes causes coagulation of the albumen in twenty to thirty minutes. This is a practical test that can be made under any and all circumstances.

Acne.—An inflammatory, usually chronic, disease of the sebaceous glands, characterized by papules, tubercles or pustules, or a combination of these lesions, occurring for the most part about the face (Duhring).

Bartholow (*Med. Elec.*, p. 228) has obtained good results from the use of galvanism in this and many other affections of the skin. He stimulates the entire surface of the face, paying little attention to the direction of the current. A current of 2 to 3 *milli-amperes* is found most suitable. After the immediate effects, which are irritating, have passed off, the skin becomes pale and the eruption less prominent. One electrode may be passed over the face while the other remains on the nape of the neck. Fox uses a small metal button applied to the red blotches, which remain after evacuation of the contents of a nodule. In *acne rosacea*, when dilated blood vessels are present, treatment with the electrolytic needle has given good results (Duhring and Stelwagen, *Am. Sys. Med.*, page 649). The positive electrode is held in the hand, and a fine needle attached to the negative is applied to the small vessels. Two to six *milli-amperes* may be employed, being governed by the amount of pain and destruction caused.

Amaurosis, amblyopia, anemia of the optic disc, and other diseases arising from anesthesia of the retina, have yielded excellent results under the use of electricity. Anemia should be treated by galvanism and hyperemia by faradism. Applications should be made directly to the eyes—the anode resting on the closed lids and the cathode on the malar bone or temple (Bartholow). A current of two milli-amperes wil lusually be found of sufficient strength. It may, however, be increased until faint flashes of light are seen, but should not be continued for more than two or three minutes. When faradism is employed the current should be rapidly interrupted and no stronger than is comfortable.

Amenorrhea.—May be either an interruption or habitual non-appearance of the menstrual discharge. May occur with plethora, from disturbance of ovarian or uterine function, or with anemia and debility. The greater number of cases are met with in anemic females.—(*Hartshorn's Prac. of Med.*) Galvanism, faradism and franklinism are employed. Electricity is especially valuable in young women, where the menstrual function is not fully established, on account of a torpid state of the vaso-motor nerves of the ovaries and uterus, and also where the catamenia have been suppressed after labor, or in consequence of a sudden chill or emotion.—(*Golding Bird, Quarterly Epitome.*)

Anesthesia.—May arise from various causes—lesions of the brain and spinal cord, division of a nerve supplying a certain part, the results of exhausting diseases, etc. The sense of touch may remain, and the sense of pain be lost, or vice versa. When sensory functions are diminished we have anesthesia increased, hyperesthesia. In most cases removal of cause is the principal element in the cure. The faradic current is most suitable. Dry the skin, and dust with some drying powder, and apply the current by means of the wire brush or metal electrode for about ten minutes daily. The stable electrode, well moistened, should be applied at some indifferent point. A strong ascending galvanic current, 15 to 25 milli-amperes, may do good where there is languid circulation.

Angioma.—Dr. Alvarez speaks favorably of electricity in the treatment of angioma. The positive electrode is plunged into the tumor,

whilst the negative is moved about over the mass externally, or as near to it as possible. He gives good results in a large number of cases. The current strength may vary between 10 and 40 milli-amperes, according to the sensations and effects produced.

Aneurism.—In the treatment by electrolysis coagulation is the end sought. For aneurisms of any size, both poles and a large number of needles that are insulated should be used. Strength of current, about 45 milli-amperes. Current should be allowed to flow for some minutes.—(*Beard.*) The advantage in using two needles is that a double clot is formed and the resistance is less. Cisnicelli records 37 cases of aortic aneurism with 6 cures. Petit gives 114 cases of thoracic aorta, with 96 benefitted, 38 deaths and 45 failures. Robert Abbe uses coils of wire, inserted in the aneurism after Barwell's method. The galvanic current is allowed to flow through the wire. The reason there are so few good results is that operative procedures are delayed until the sac is almost ready to burst. Coagulation is more certainly secured by this method than by catgut or horsehair alone. No suppuration or embolism ensues, and a firm clot is formed.

Asthma.—Probably a purely functional neurosis, as the organs present no characteristic anatomical changes. In cases of long standing, the evidences of chronic catarrh are due to the secondary affections. Owing to its neurotic origin, Eade (*Brit. Med. Jour.*) recommends galvanization of the neck. One pole is placed just below the angle of each jaw and in front of the sterno-cleido-mastoid. I have been unable to ascertain the exact strength of current employed, but he uses one strong enough to be felt, probably 20 milli-amperes would be sufficient. Bartholow (*Med. Elec.*) recommends systematic galvanism in the intervals between the seizures. Ranney recommends drawing of sparks from the anterior and posterior surfaces of the chest by means of the static machine (*Elec. in Medicine*). The induced electrical current has been used by Schaeffer as a means of cutting short the paroxysms. Place one pole at the angle of each jaw in front of the sterno-mastoid, so as to cover the course of the pneumogastric and sympathetic; the current strong enough to be felt passing through the neck. Apply 15 minutes twice a day for six days, twelve sittings usually affording relief. At first there may be dilatation of the pupils, but this is followed by contraction as improvement follows. (*Geddings, Am. Sys. Med., vol. iii.*)

Breast, tumors of—Under this head are classed such growths as are not carcinomatous, chronic mammary tumor (adenoma), cysts, fibromata, enchondromata, osteomata. Galvanism is the current most suited to the treatment of these tumors. It is essential to successful treatment that they be discovered early, while yet small. Surface applications are indicated. Large, soft, well moistened electrodes should be applied to both sides of the tumor, and so placed as to permeate mainly in the direction of the axilla. A current ranging from 10 to 50 milli-amperes may be used at each *seance*. No exact rule can be laid down, as the resistance varies greatly. Of 186 tumors treated after this manner by Dr. Garret, of Boston, 157 disappeared entirely and permanently.

Bullets, detection of—Instruments necessary, telephone, suitable shaped metal probes, insulated nearly to the tips, and a small, steel ball with necessary connecting cords. In the apparatus as perfected by Dr. J. H. Girdner, of Boston, no battery is used, the patient's body being made to furnish the current. The earphone is flat in shape, and is held in apposition to the surgeon's ear by an elastic head band or metal frame, thus leaving both hands free for work. One pole of the magnet in the receiver is connected with a small, steel ball, which the patient holds in his mouth and the other end to the probe. The probe when passed into sinuses or bullet tracks gives no sound unless it comes in contact with some metallic substance, when the current is completed and a decided "click" is heard in the instrument. The telephonic probe is destined to play an important part in the department of surgery, as it is sensitive, reliable, and at the same time compact and inexpensive. Any telephone constructed on the Bell principle (electro-magnet and metallic diaphragm) will serve to transmit the sounds to the ear. (*Vide* Ganot's Physics, p. 884.)

Cataract.—Recent advances in electro-therapeutics have led to the use of the current in this affection. The action of electricity is three-fold—mechanical, tonic and catalytic; tonic from its action on the sympathetic and pneumogastric, catalytic from its electrolytic action. "In all cases in which the disease is progressive, as indicated by the fat granules and nebulæ, where electricity is well borne, where the choroid and retina are not greatly degenerated, and where there is no complication of cirrhosis of the kidneys or liver, diabetes or organic disease of heart or lungs, improvement may be expected." The negative electrode should be placed on the eye, and the positive on the nape of the neck, jaw or stomach. A current of two milli-amperes will be sufficient for most cases, though no rule can be laid down. This may cause vertigo. A current of this strength may be applied for five or six minutes daily. Faradic current, negative to the nape of the neck or in the hand of the patient, and positive to the eye, by means of a moist sponge or the fingers. Use a weak current for five or ten minutes daily.—(*Kidder.*)

Cord, Spinal.—Acute inflammatory conditions should not be treated with electricity. When the disease has assumed a chronic type, galvanism is of more service than the faradic or static

currents, probably on account of the depth of tissue affected. The various complications of the disease, rectal and vesical irritations, incipient caries, paralysis, etc., may often be greatly relieved by galvanism. The current strength varies from five to eight milli-amperes, and the applications should be made daily. Occasionally a current of twelve milli-amperes will be found necessary in chronic cases. Points of tenderness should be sought and galvanized separately.

Fibroids.—From July, '82 to July '87, Apostoli made 5,201 applications of the continuous galvanic current for the following affections: Fibroids of the uterus, polypi, entire or partial hypertrophy of the uterus, subinvolution, acute and chronic endometritis, ulceration of cervix, periuterine inflammation, ovaralgia, ovaritis, salpingitis, tubular cysts, atresia, and hematocele. The 5,201 applications were made on 403 patients. Of these he lost two, and had ten phlegmons, which he excited or aggravated.

Fistula, Anal.—Ciniselli reports a case in which all manner of cauterization had been employed. An elliptical ulcer was found on the right margin of the anus one and one-half inches square. He cauterized it superficially with a current of fifteen milli-amperes for fifteen minutes, with the result that in one week there was less pain and tenderness, and cicatrization had commenced. One week later cicatrization was complete and all pain gone. Numerous cases of a similar nature have been reported, establishing the value of electricity in this condition.

Galvanization.—Central.—Dr. Beard recommends that the cathode be placed over the epigastrium. The anode is to be stroked over the forehead, with a current of about two milli-amperes, for two minutes; then to the cranium for two minutes; afterward moved up and down the neck for a like length of time, and finally applied up and down the spine for about ten minutes. This method gives excellent results in the various forms of nervous dyspepsia, gastralgia, hysteria, hypochondriasis, etc. When the current is transferred from the brain to the spine it may be increased somewhat—running up to five and eight milli-amperes.

Hematocele of tunica vaginalis—Apostoli recommends galvano-puncture as being quick and exerting a surgical and medical effect.

Hemorrhage—Post-partum.—It is possible by means of the faradic current to keep up contractions of the uterus for hours. One electrode may be applied at the symphisis pubis and the other moved about over the abdomen.

Hernia.—But few cases of the application of electricity to this condition are recorded. Dr. Craft, of Cleveland, reports a case in which a needle, properly insulated except at the point and attached to the positive pole, was introduced subcutaneously between the external and internal rings and a current sufficient to excite adhesive inflammation allowed to pass. Care must be taken to keep the needle external to the peritoneum and not to injure the cord. The operation resulted in a cicatricial sealing of the inguinal canal.

Hydrocele.—Excellent results have been obtained by electrolysis by Rodolfi, Erhardt, Frank, and Bartholow. Two insulated needles are introduced into the sac and brought within half an inch of each other, when the current is turned on. Signor Macario (*Gaz. Med. Ital. Lombard No.* 36) reports two cases cured by the single application of a current one minute. In both cases the fluid disappeared entirely in 24 hours, though no fluid escaped from the needle puncture. A current of 20 to 30 milli-amperes may be used, being guided largely by the sensations experienced by the patient.

Hypertrichosis.—Place patient in a suitable position and light. Have a suitable galvanic battery. Moistened sponge electrode attached to the positive pole and a platino-iridium needle or jeweler's brooch attached to the negative by means of a suitable handle. The needle is inserted as near as possible into the hair follicle and the circuit completed. After a sufficient length of time the circuit is opened and the needle withdrawn. The hair is permanently destroyed. Hays (*St. Louis Med. and Surg. Journal*) uses 5 to 10 zinc-carbon cells and a cambric needle, allowing the current to flow 15 to seconds. Hardaway (*Phil. Med. Times*) used 8 cells and a No. 13 cambric needle. Fox (*N.Y. Med. Record*) prefers 10 to 16 cells of zinc carbon battery and fine flexible steel needle. Amory (*Boston Med. and Surg Journal*) thinks a fine gold needle the best and 20 seconds sufficient as to current strength. Lusgartin (*Wein. Meiz. Woehensehift.*) uses ½ to 1 milli-amperes from 20 to 30 seconds. Michelson (*Niertel Jahrschrift. fuer Dermatolgie*) used 3 milli-amperes. Baratoux required 5 to 8 milli-amperes, and Brocq needed from 10 to 25 milli-amperes. I have found, after a large number of experiments, that a jeweler's fine brooch is the most suitable needle, and that a current of 3 milli-amperes for 30 seconds is sufficient to destroy the coarsest hair, while one rarely needs a current greater than 2 milli-amperes if continued long enough.

Induction Balance.—Principle first applied by Babbage, Hershell and Dove. The instrument devised by Prof. Hughes (*Vide* Ganot's Physics, p. 848.) is the most complete, and offers to the physicist, or physician, a powerful instrument of search. The apparatus consists of two primary coils, each containing 200 meters of No. 32 silk-covered copper wire, and two secondary coils, all four being exactly alike. The two primary coils are joined in series with a battery of three or four Daniell's cells, in which a microphone is also inserted; the current being broken by the ticking of a small clock. The secondary coils are connected with a telephone in such a manner that

their action upon it is opposed. In winding the coils it is found almost impossible to get an exact balance. Adjustment between the secondary and primary coil is made by a micrometer screw. When this is accomplished there is silence in the telephone, but if any metal is introduced in one of the secondary coils a sound is heard at once. This principle has been made use of in the detection of metallic substances buried in the body; but while the substance is always detected, it is not accurately located, and the results from the use of the instrument have not been of the most satisfactory nature.

Intestinal Obstruction.—In invagination, faradic currents have effected cures. Cases are reported by Bucquoy (*Jour. de Therapeutique*) and by Ballouhey (*These de Paris*) of cures by the galvanic or faradic currents. In the use of the galvanic current peristalsis is probably started from the point of application, while faradism probably acts by forcibly contracting that part of the canal reached by the current, and the consequent traction exerted upon the invaginated portion (*Bartholw*), One pole should be placed in the rectum and the other passed over the abdomen. Direction of the current is unimportant.

Lactation.—The faradic current has given good results in undeveloped glands after parturition. In one case reported by Aubert (*London Med. Record*) two applications gave a free supply. The static spark is recommended as being more reliable, but faradism will do well. Both breasts should be included, and the treatment should be instituted promptly to be successful. Becquerel relates a case of a young woman who, after eight days suppression, was able to nurse her baby, and in whom the quality of milk was improved. Pierron relates a large number of cases in his practice in which electricity either re-established the function after suppression, or induced it when absent after normal labor. In my own practice I have found galvanism, a current strength of four to six milli amperes, and faradism alternately to be a very satisfactory method of treatment. The anesthesia usually present rapidly decreases

Larynx, Papilloma of—May be successfully removed by means of the galvano-cautery. It is well to produce local anesthesia by means of a strong solution of cocaine. The cautery point should be at a white heat, and placed *in situ* before the current is turned on. The amount of battery power required for any particular electrode may be ascertained beforehand. Leave electrode in contact with the growth for a few seconds only. In a few days the growth will drop off if properly cauterized.

Liver, hydatid cysts of.—Capillary electrolysis is recommended as one of the new methods of treatment. In this method, the needle is replaced by a canula which remains free. There is no pain. By the partial coagulation of the fluid, a more efficient chemical action takes place. During the passage of the current, it permits of the escape of the gaseous froth. It destroys the hydatids and changes the living into an indifferent substance which solidifies and retracts. Finally it obtains the cure of the cyst without subjecting the patient to a serious operation. (M. H. Heurot, *Jour. de Med. de Paris*, Oct. 11, '82.)

Lupus vulgaris.—The ulcer and surrounding integument should be washed carefully with soap and water. The application may be made by means of a flat silver plate, set in a rubber ring to prevent action on the healthy tissues. This is attached to the negative pole. A current of from 5 to 10 milli-ampères is employed for ten or fifteen minutes. In this manner the electrolytic action is confined to the diseased parts. Under the influence of the current, the lupus nodules become excoriated and swollen, and give vent to a clear, watery, sticky fluid. After a few hours they sink out of sight. They may be dressed in iodoform for eight or ten days. The result is a pigmented cicatrix. This method of treatment is applicable to the ulcerating and non-ulcerating forms. (*Vide Weiner Med. Wochenschrift*, Nos. 27, 28.)

Metritis and Endometritis.—Metritis, hyperplasia of the connective tissue of the uterus combined with increased sensibility. In a paper by Apostoli (*Jour. Am. Med. Assoc.*, Vol. 8, No. 19), the application of electricity in these conditions is fully treated. A medical galvanometer for intensity divided into milli-ampères should be included in the circuit. Of permanent batteries, the Leclanche cell is recommended. The intra-uterine electrode should be large enough to reach all parts of the uterine cavity and have a glass muff to protect the vagina. The electrode should be of platinum. A neutral or insensible electrode, which is applied to the abdomen, allows of the use of the intense current without pain or heat. The cords should be of good conducting material. Precede the applications with a vaginal antiseptic injection. "Singe and disinfect" the electrode and introduce it carefully with the current turned on. Cauterize the cavity thoroughly in all hemorrhagic cases, less thoroughly in others. After two or three applications the intensity must be increased, reaching 100 to 200 milli-ampères. Apply for five or ten minutes. These applications should be made every week, and every second day if necessary, and should be followed by a rest of several hours in bed. This treatment, it is claimed, induces a new form of intra-uterine mucous membrane and forms an intra-uterine exudation.

Myoma.—Martin, in a paper read before the Ninth International Congress, speaks of the treatment of myoma by electricity. Local effects of the poles should be borne in mind, *i.e.*, that acids collect at the positive and alkalies at the negative. A current possessing intensity rather than volume is desired. The current exercises

an atrophic effect—not electrolytic action alone, that produces the desired end. The elements being separated an electrolytic action takes place and absorption follows. Caustic effects are not desired and there is no galvano-puncture as in Apostoli's treatment. A current of more than 100 milli-ampères is never used. This method of treatment is claimed to be devoid of danger, painless, checks hemorrhage, reduces the size of the tumor and admits of accurate dosage. (*Med. News*, Vol. 51, No. 2.)

(*To be continued.*)

THE THERAPEUTICAL VALUE OF BISMUTH SALICYLATE.

Dr. Hale (*Polyclinic*) says:

In an experience extending over two years, with its use in treatment of inflammatory affections of the gastro-intestinal tract, seldom has it failed to accomplish the desired result and permanently cure the disease. In severe cases of diarrhea occurring in phthisical patients, I have effected diminution in the number of stools by half dram doses of the drug at intervals of two hours, reducing the amount of the dose on the amelioration of the symptoms. In cholera morbus, after the cause has been removed, this agent will reduce the existing inflammation and induce a cessation of the morbid action.

In dysentery, acute in character and of the sporadic variety, it has proved efficacious when full medicinal doses have been administered, allaying the disorder with great rapidity.

The diarrhea accompanying enteric fever, especially in children, I have been able to control by its use, when other well known remedies for this disorder had failed. If impossible to administer by the mouth, an enema may be employed, but in that case, the amount should be double that given by the month; and it should always have a small amount of opium administered with it.

In dyspepsia, with acid eructations and pyrosis, with a feeling of heaviness at the stomach after the ingestion of food, bismuth salicylate, in combination with simple bitters, soon tones up the organ and relieves the disorders. Recently, Dr. James Ware, of Lake Charles, La., communicated to me the following cases in which he had found the preparation useful:

1st. Female, æt. forty-five, dysentery. At the end of five days of treatment with opium and so on, I gave: R.—Bismuth salicyl., gr. c.; bismuthi subnit., gr. c. M. Ft. pulv. No. vj. div.

Gave one powder every three hours. The woman was entirely relieved in twelve hours.

2nd. Female, æt. twenty-three, dysentery. Gave salicylate as above, also by enema, thus: R.—Bismuthi salicyl., gr. cc.; glycerinæ, f ʒ j; aquæ, f ʒ vj. M. Sig.—f ʒ i, in three ounces of tepid water, after each stool.

Woman was well in forty-eight hours.

3rd. Child, æt. three; never fully recovered from an attack of cholera infantum last summer. Relieved by salicylate in eight grain doses.

4th. Male, æt. twenty-five; periodical fermentation of contents of bowels every ten or twelve days for a year. Relieved now at the beginning of every attack, by fifteen grains each of the bismuth salicylate and subnitrate.

5th. Female, æt. twenty; pruritus vulvæ. Suffered terribly for several days. Used corrosive sublimate, carbolic acid, and other remedies with no benefit; then employed: R.—Bismuthi salicyl., gr. c.; aquæ, f ℥ iv.

As a vaginal injection; relief instantly.

6th. Female, æt. fifty-six. Fermentation of contents of stomach and bowels every ten, twenty or thirty days for twenty years, accompanied with violent pain and frequent discharges of acid mucus. Relief generally came in from thirty to seventy-two hours. In the midst of an attack I gave ten grains of salicylate, and subnitrate, with immediate relief. She has taken this amount night and morning for thirty days, with no return of the disease.

The preparation of this drug I have used is a pure white, very flocculent and light material. In beginning the treatment of any inflammatory affection of the alimentary canal, full and decided doses should be administered, and subsequently, when decrease in the severity of the symptoms takes place, the amount may be lessened. It severe cases occurring in children, I never commence treatment with a dose less than five to eight grains.

The formula I prefer in cholera infantum and many other diarrheal disorders in children is the following: R.—Bismuthi salicyl., ʒ ij.; tr. capsici., gtt. xij.; spts. ammon. aromat., f ʒ iss.: pulv. acaciæ, ʒ ij.; aq. cinnamoni, q. s. ad., f ℥ ij. M. Sig—Teaspoonful every two hours, for a child from three months to one year of age.

In the adult I prefer to use the preparation in powder, or combined with some other astringents, as tannic acid, acetate of lead, etc. With the bismuth salicylate it is possible in many instances to entirely dispense with an opiate, and this I always endeavor to do if possible.

The beneficial action of this drug is undoubtedly due to the antiseptic power of the salicylic acid as much as the astringent properties of the bismuth. In many cases of vomiting it will control it if given in five grain doses, also in pregnant women the vomiting in many instances may soon yield to the action of this preparation, and its return to any great extent will be prevented by its continuance in small and frequently repeated doses.

PEPPERMINT WATER IN PRURITUS PUDENDI.

Dr. Amand Routh calls attention to the value of peppermint water in pruritus pudendi. In pruritus, due to pediculi, ascarides, an irritable urethral caruncle, an endocervical polypus, early cancer of the cervix, distension of Bartholini's ducts or glands, the leucorrhœa of vaginitis, endocervicitis, and metritis, or the irritating discharges of advanced carcinoma uteri, or to a gouty or diabetic diathesis, peppermint water excels all others, cocaine inclusive, in affording relief, whilst endeavors are being made to remove the cause. The agent here alluded to is peppermint water used as a lotion. The B. P. preparation answers well, but is bulky for carrying about, and is incapable of concentration unless rendered alkaline. This is best done by borax, as being in itself soothing and antiseptic. Patients can easily make their own lotion, as required for use, by putting a teaspoonful of borax into a pint bottle of hot water, and adding to it 5 drops of oleum menthæ piperitæ, and shaking well; the parts affected to be freely bathed with a soft sponge. If no cracks or sores are present, this lotion will remove the itching; but if there be eczema or a rawness from scratching, it is inapplicable. Olive oil, with 5. grs. of iodoform to the ounce, is then more useful. The greatest and most permanent relief is afforded in the neurosal form, especially in the pruritus which often accompanies pregnancy. It is also very useful in the pruritus which occurs at the climacteric, or in elderly women, in whom it may be only part of a general pruritus, and also in those cases of women of all ages, where the urine simultaneously becomes of very low specific gravity without any evidence of having a gouty or granular kidney as a remote cause.—*Brit. Med. Jour.*, April 14, 1888.

ELECTRICITY IN THE TREATMENT OF FIBROIDS OF THE UTERUS.

(By Maria B. Werner, M.D., Philadelphia, Pa.)

The use of electricity in the treatment of fibroids has, until within later years, been more or less in the hands of charlatans, their accidental good results induced many inquiring and scientific minds to investigate its therapeutical value, and endeavor to place it before the profession as an agent whose known quantities produce definite results. While this latter still presents many sides for improvements, all will agree that a steady advance has been made in this study.

About 1870, Dr. Cutter began to use the galvanic current for uterine fibroids. The patient was placed under the influence of an anesthetic, and the electrodes were introduced through the abdomen, deeply into the growth (three to four inches), but not allowed to approach each other. The application lasted from three to fifteen minutes, the operator being guided by the systemic symptoms. The intervals were usually from one week to a fortnight, but it has been repeated every day for one week. In the February number of the *American Journal of Obstetrics* for 1887, Dr. Cutter has given a statistical report of fifty cases; eleven cured, three relieved, twenty-five arrested, seven not relieved, and four fatal. These results may seem encouraging, but the method seems not entirely free from danger, almost the first thought being a possible wounding of the intestines or bladder, and while this might be avoided by careful percussion, the chances for a sharp attack of peritonitis seem to require courage as an indispensable factor.

In 1878, Dr. Semeleder modified Mr. Cutter's treatment by using *one* puncture through the abdomen, the other being thrust either through the vagina or rectum into the tumor. The treatments lasted five minutes, and were repeated from every seven to fifteen days. There were reported at that time fifty cases, thirty-four of these were ameliorated; in a certain number the tumor disappeared completely. In sixteen, progress was not arrested, while four cases proved fatal from peritonitis.

In 1879, Drs. Martin and Cheron reported four cases in which they had used the continuous current. One pole on the neck of the uterus, the other placed *upon* the abdominal wall. They claimed that an uninterrupted continuous current rapidly diminished the size of a fibroid tumor, but would not make it disappear entirely in less than two and a half years. They also noted that the hemorrhages were much diminished.

In 1881, M. Gallard, with his pupil, Dr. Pegoud, studied the action of the continuous current on fibroid uteri, using an instrument resembling a sound with an olive-shaped tip of platinum. This was introduced, if possible, into the cervical canal; otherwise it was simply placed upon the neck, the tip being protected by a sponge. The other pole was connected with copper plates, covered with chamois skin dipped into a saline solution, these were placed upon the abdomen.

Their observations differed from all the previous ones, in that the hemorrhages were not arrested or diminished, that the menstrual period always appeared a few days too soon; the other results were also negative. This was discussed by Dr. Onimus, who thought it due to the use of too many (elements) cells—fifteen having been used by the operator—and suggested that never more than ten should be used. The error was, however, on the wrong side; when we come to look at Dr. Apostoli's work on the subject, we find he has used as many as seventy-two cells on patients, who had borne them well, and produced good results. The mere mention of cells, however, gives no definite idea of strength, since two cells composed of the same elements vary in strength in direct ratio with the amount of usage and age of exciting liquid, not considering the effect generally produced on electricity by the state of the weather.

In the report brought before the notice of the profession by Dr. Lucien Carlet in 1884, we find full particulars of Dr. Apostoli's treatment and its results. The important points in its favor are: if followed carefully there is little or not danger of shock or peritonitis, and the patient is always more or less benefited. His careful observations and studies have done much to simplify its use, as well as furnish us with careful directions regarding the length of treatment, strength of current, and application of the poles. The advantages are, that it can be done without an anesthetic, in the office, is not apt to produce shock, and the danger of the wound made is reduced to a minimum. The needle is used exclusively through the vaginal portion of the tumor.

A little more than two years ago, I had the pleasure of seeing Dr. Apostoli at his clinic, his work was conscientiously done, and the patients, without exception, expressed themselves much improved by the treatment.

The active electrodes used were of two kinds, usually combined in one instrument, a long, moderately thick probe, finished on one end like a uterine sound; the other straight, with its extremity shaped like a spear with cutting edges. The one end would be sheathed in the handle while the other was being used, or vice versa. This was either of platinum or gold, the two metals least affected by the current. A rubber or glass tube was used as an insulator.

The passive electrode consisted of a pad of clay to cover the abdomen, the current connected with a copper or leaden plate was placed on the pad. This made resistance stronger, and distributed the current more evenly.

The internal electrode was usually negative, unless hemorrhage was a troublesome symptom, when the positive became the active electrode; this, being the acid pole, produces a caustic effect, and at the same time a contraction and condensation of the tumor. The sound is used more often than the spear; the latter is used in two particular instances with advantage.

1st. When a fibroid is within easy reach through the vagina.

2d. In a large intramural fibroid, when the instrument is passed along the uterine canal and plunged a short distance into the fibrous tissue.

It is needless to say, in our enlightened age, that complete and careful antisepsis of both vagina and instruments is of absolute importance. The instruments are made antiseptic by heat (alcohol lamp), and the vagina cleansed with an antiseptic solution. A milliamperemeter is also an indispensable aid to the careful physician.

For nearly two years I have had an opportunity to watch six cases, for a space of time sufficient to give an account which may prove interesting.

Case 1.—Mrs. K. W., white, æt. 58, four, children, two miscarriages; seen 1st of March, 1886. Histroy: Prolonged, profuse and painful menstruation, steadily increasing for the last six years, together with a feeing of weight and dragging pain in the lower part of the abdomen, also an inability to sit down without pain. Examination revealed an enlarged and irregularly nodulated uterus, occupying almost the entire pelvic cavity. Uterine cavity, four and a half inches. To the right of the uterus, a small flattened body was felt, which could be separated in its lower half from the uterine body. There was no nausea or exaggerated pain on pressure. Faradic electricity was used (negative pole in the uterus-positive on the abdomen) thrice weekly for four weeks, after which the galvanic current was used exclusively. All the treatments were intra-uterine, with two exceptions, when the puncture was used. The uterus began to diminish slowly but steadily in bulk, after the first six weeks, until, in the early part of August, it measured three inches. The body smooth, almost normal to touch; the flattened mass on the right gradually became more rounded, and was now about the size of an English walnut, separate from the uterus, pressure giving some pain and nausea. About this time treatment was suspended. In November, nearly three months later, presented herself at my office. Uterus retroflexed and turned to the left; cavity, two and three-quarter inches; right and posterior half of pelvis occupied by a painless cystic tumor, about as large as a medium-sized orange. An operation was advised. March, 1887, I made an abdominal section, removed a parovarian cyst. *The uterus was seen to be perfectly normal in size and appearance.—Am. Jour of Obstet.*

FLOODING.

(Montgomery.)

A woman of twenty-eight complains of flooding for three weeks. Examination shows that uterus is about as large as that of a three months' pregnancy; but it does not feel like a pregnant uterus, nor do the other conditions favor this view. The probabilities are that we have here soft growth in the cavity of the uterus. Although she says that she has not had a chance to become pregnant since last November, we will not take the risk of inserting a sound into the uterus till we have had the woman under farther observation. Meanwhile she will be given this prescription for the flooding.

R Ext. cannabis indicæ..... ..gr. viij
Ext. ergotæ fluidi ..... ℥ j
Ext. hamamelis fluidi..... ℥ ss
Tinct. cinnamomi..... ℥ ss
M. Sig.—Teaspoonful three times a day.

Ergot would not be contra-indicated even if we knew her to be pregnant. Injection of hot water will also be given. As soon as we are quite sure that there is no pregnancy, the os will be dilated with a tent wide enough to introduce a finger; and then a positive diagnosis can be made.

HOW TO TREAT CRAMPS IN THE LEGS.

Many persons of both sexes are greatly troubled with cramps in one or both their legs. It comes on suddenly, and is very severe. Most people jump out of bed (it nearly always comes on either just after going to bed, or while undressing) and ask some one to rub the leg. I have known it to last for hours, till, in despair, they would send for the family physician; and even then it would be hours before the spasms would let up.

There is nothing easier than to make the spasm let go its hold, and it can be accomplished without sending for a doctor, who may be tired and in need of a good night's rest. When I have a patient who is subject to cramps, I always advise him to provide himself with a good, strong cord. A long garter will do if nothing else is handy. When the cramp comes on, take the cord, wind it around the leg over the place that is cramped, and take an end in each hand and give it a sharp pull—one that will hurt a little. Instantly the cramp will let up, and the sufferer can go to bed assured that it will not come on again that night. For the permanent cure, give about six or eight cells of galvanic battery, with the negative pole applied over the spot that cramps, and the positive pole over the thigh. Give it for ten minutes, and repeat every week for one month.

I have saved myself many a good night's rest, simply by posting my patients, subject to spasm of the legs, how to use the cord as above. I have never known it to fail, and I have tried it after they had worked half the night, and the patient was in the most intense agony. Even in such cases, at the first jirk of the cord, all pain left.—*R. W. St. Clair, M. D., Medical Age.*

PNEUMONIA IN CHILDREN.

Child of twenty-two months; admitted May 1st; has had persistent cough; temperature ranging from 100° to 103°; dullness, but not very marked, at base of right lung; mucous *râles* at the same spot. Diagnosis, catarrhal pneumonia. Dr. Stryker said that this case illustrated the fact that very young children rarely have the symptoms of pneumonia so well marked as they are in adults. Instead of complete dullness at the affected spot, there is merely a modified dullness, and auscultation shows that some air is entering the vesicles at this point.

Before being admitted the child had suffered from bronchitis. This has extended to the air cells, and now the child has both bronchitis and pneumonia. As for treatment, generally the simpler the better.

You might try a mild mustard plaster, but do not leave it on until there is any possible irritation. Turpentine stupes are also good.

He is not in favour of poultices on account of their sogginess, and the sudden changes of temperature to which the child is subjected through the changing of the poultices. He prefers a thick packet of cotton around the chest.

The treatment given was a mixture of mistura glycyrrhizæ comp., ammonii chloridum, syr. senegæ, and syr. ipecac.

A little paregoric was added to a dose when thought necessary, on account of the cough.—*Philadelphia Medical Times.*

ANTIPYRIN IN MIGRAINE.

During the last two months I have treated twenty cases of migraine; several of the patients having suffered for over ten years, and, finding all drugs useless, had become reconciled to being periodically prostrated for one or two days. In every case I ordered eight grains of antipyrin, dissolved in water or lemonade, to be repeated each half hour until cured, the patient to remain lying down. Most of the cases were quite cured by two powders, but the most obstinate yielded to three, and in no case did the antipyrin fail. A cup of warm tea sometimes seemed to help, and the only inconvenience due to the treatment was, in a few of the cases, considerable sweating,

Many of the patients can hardly credit that, instead of being utterly helpless for twenty-four hours, they can now cut short an attack in one hour.

There is another great advantage in using antipyrin, and that is that it prevents as well as cures these attacks. One lady, who cannot remember having fewer attacks than three a month, each lasting about thirty-six hours, has been quite free for about eight weeks, and this she attributes solely to the occasional use of an antipyrin powder.—*Med. Review.*

WEAK THROAT.

He advised a woman who had a weak throat, that is, the mucous membrane was relaxed, and caused sensations of a sore throat without its actually being sore, to pursue this treatment: On one sumac top, as fresh as possible, she was to pour a pint of boiling water; and into this put a teaspoonful of common salt. Keeping the water warm, she was to gargle her throat thoroughly every three hours. Atkinson has seen this treatment have a remarkably beneficial effect.

Hypodermic or other syringes, when clogged so that a fine wire cannot be forced through them, may be cleaned by holding them over a spirit flame for a moment, and the foreign matter will be quickly expelled or destroyed, so that liquids may be used immediately. When a wire has rusted in a needle, dip the point in oil, then hold it over a flame, and it can be removed. It is well to draw oil through the point, then heat it, and rust will be removed from the interior; afterwards wash with alcohol, and it is ready for use.—*Memphis Medical Monthly.*

BORIC ACID A REMEDY FOR STYE.

Dr. Geo. Reuling says: I have found a simple and effective remedy for stye to be a solution of fifteen grains of boric acid to an ounce of water. By applying this solution three times a day to the inflamed part of the eyelid, by means of a camel's hair brush, this painful and annoying affection will be conquered very rapidly—*Virginia Med. Monthly*, October, 1887.

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CONTAGIOUSNESS OF PHTHISIS.

We had the pleasure the other day of a conversation with an esteemed confrère, Dr. Osler, now Professor of Clinical Medicine in the University of Pennsylvania, on the above subject. It has long been our opinion, based on clinical facts, that Phthisis is rather a contagious than a hereditary disease. That is to say, that a man dying of phthisis leaving only one child born after his death, and in another house, free from the germs of tubercle, and from a mother who had not been infected with the disease, such a man, we say, would not transmit tubercle to his child. Such a case rarely happens, but on the contrary, the children of tubercular parents almost invariably have their lungs saturated with tubercle bacilli immediately after their birth. But we maintain that if such children were removed immediately to healthy surroundings, they would start in life with an inherited weak constitution, it is true, but with no specific tendency to phthisis. They would be more liable to contract phthisis on exposure to the germs, just the same as but not more than any other person of weak constitution. There is a general law to be seen in nature, in virtue of which lower organisms prey upon the weaker members of the higher area. For instance, as long as the green leaf is strong and well nourished, fungi do not touch it. But the moment that from any cause the vitality of the leaf is materially affected, then the fungi seize upon it and soon consume it, leaving nothing but a fibrous skeleton. Now just in the same way when a case of phthisis is imported into a house occupied by a family, in which for a hundred years back no one had died of phthisis, the weakest organized inmates of that house will contract the disease one after the other. The fact that certain members of the family escape only proves that their vitality was strong enough to resist it. Do we not see the same thing during an epidemic of typhoid? We know that the period of incubation of typhoid is only a week or two, and yet it is a common thing to find that the patient had not been feeling well for some months; he had been below par, as they often say.

An argument sometimes used against the contagiousness of phthisis is the apparent immunity of nurses in consumptive hospitals. But this can be easily explained; only the strongest constitutions are engaged in such institutions; and if any of them should show signs of failing health, she would be immediately ordered away.

On submitting the above argument to Dr. Osler, he expressed himself at being thoroughly convinced of the contagiousness of phthisis, and he informed me that he had seen the advance sheets of a work about to be brought out in Philadelphia on this very question. The importance of this subject cannot be over-estimated, more people die of consumption than of any other known disease, and while many other formerly very fatal diseases are rapidly disappearing under the direction of sanitary science, the death rate from phthisis remains almost as great as ever. And yet we feel convinced that it, too, might be made to disappear completely from off the face of the earth, under a proper system of isolation. This of course is out of the question at present; public opinion must first be prepared for it, through the profession. It is with the object of calling the latter's attention to it that we have made the above remarks. Let medical men, when taking the family history and previous history of a consumptive patient, no longer rack his and the patient's brain to find a remote ancestor who had the disease, but let him rather enquire as to the surroundings of the patient during the

last few years. In some cases he will find that the disease was imported by a pretty, blue-eyed, white-skinned nurse girl, who before coming to them had been nursing her sister who died of consumption; in other cases it will be found to have been caught from a consumptive husband or wife; in some cases even it has been contracted from a fellow lodger, whose name perhaps the patient does not know. Many examples of the above means of contagion have come to our knowledge, and we believe that it is the duty of the profession to put those who look to us for guidance on their guard against contracting this terrible disease.

CANADIAN MEDICAL ASSOCIATION.

The following papers have been promised for the meeting of the Canadian Medical Association, which will be held in Ottawa, on the 12th, 13th and 14th of September:

1. Face Presentations—Dr. W. M. MacKay, Woodstock.

2. The Mortality of Pneumonia—Dr. Wm. Osler, Philadelphia.

3. The Duty of the Medical Profession under the Public Health Act of Ontario—Dr. Wm. Canniff, Toronto.

4. On some Minute but important Details in the Management of the Continuous Current in the Treatment of Fibroid and other Diseases of the Uterus—Dr. A. L. Smith, Montreal.

5. A Case of Resilient Stricture of the Urethra Cured by Electricity—Dr. A. L. Smith, Montreal.

6. On the Treatment of Varicocele and Orchitis by the Electrical Current—Dr. A. L. Smith, Montreal.

Papers have also been promised by Drs. Fenwick, Shepherd, Alloway, Blackader, and Bell, of Montreal, and many others.

THE CODE OF ETHICS OF THE AMERICAN MEDICAL ASSOCIATION.

ART. IV.—*Of the duties of physicians in regard to consultations.*

1. A regular medical education furnishes the only presumptive evidence of professional abilities and acquirements, and ought to be the only acknowledged right of an individual to the exercise and honors of his profession. Nevertheless, as in consultations the good of the patient is the sole object in view, and this is often dependent on personal confidence, no intelligent regular practitioner, who has a license to practice from some medical board of known and acknowledged respectability, recognized by this Association, and who is in good moral and professional standing in the place in which he resides, should be fastidiously excluded from fellowship, or his aid refused in consultation, when it is requested by the patient. But no one can be considered as a regular practitioner or a fit associate in consultation, whose practice is based on an exclusive dogma, to the rejection of the accumulated experience of the profession, and of the aids actually furnished by anatomy, physiology, pathology and organic chemistry.

2. In consultations, no rivalship or jealousy should be indulged; candor, probity and all due respect should be exercised toward the physician having charge of the case.

3. In consultations, the attending physician should be the first to propose the necessary questions to the sick; after which the consulting physician should have the opportunity to make such further inquiries of the patient as may be necessary to satisfy him of the true character of the case Both physicians should then retire to a private. place for deliberation; and the one first in attendance should communicate the directions agreed upon to the patient or his friends, as well as any opinions which it may be thought proper to express. But no statement or discussion of it should take place before the patient or his friends, except in the presence of all the faculty attending, and by their common consent; and no *opinions or prognostications* should be delivered which are not the result of previous deliberation and concurrence.

4. In consultations, the physician in attendance should deliver his opinion first; and when there are several consulting, they should deliver their opinions in the order in which they have been called in. No decision, however, should restrain the attending physician from making such variations in the mode of treatment, as any subsequent unexpected change in the character of the case may demand. But such variation, and the reasons for it, ought to be carefully detailed at the next meeting in consultation. The same privilege belongs also to the consulting physician if he is sent for in an emergency, when the regular attendant is out of the way, and similar explanations must be made by him at the next consultation.

5. The utmost punctuality should be observed in the visits of physicians when they are to hold consultations together, and this is generally practicable, for society has been considerate enough to allow the plea of a professional engagement to take precedence of all others, and to be an ample reason for the relinquishment of any present occupation. But as professional engagements may sometimes interfere, and delay one of the parties, the physician who first arrives should wait for his associate a reasonable period, after which the consultation should be considered as postponed to a new appointment. If it be the attending physician who is present, he will, of

course, see the patient and prescribe ; but if it be the consulting one, he should retire, except in case of emergency, or when he has been called from a considerable distance, in which latter case he may examine the patient, and give his opinion in *writing* and *under seal*, to be delivered to his associate.

6. In consultations, theoretical discussions should be avoided, as occasioning perplexity and loss of time. For there may be much diversity of opinion concerning speculative points, with perfect agreement in those modes of practice which are founded, not on hypothesis, but on experience and observation.

7. All discussion in consultation should be held as secret and confidential. Neither by words nor manner should any of the parties to a consultation assert or insinuate that any part of the treatment pursued did not receive his assent. The responsibility must be equally divided between the medical attendants—they must equally share the credit of success as well as the blame of failure.

8. Should an irreconcilable diversity of opinion occur when several physicians are called upon to consult together, the opinion of the majority should be considered as decisive ; but if the numbers be equal on each side, then the decision should rest with the attending physician. It may, moreover, sometimes happen that two physicians cannot agree in their views of the nature of a case and the treatment to be pursued ; this is a circumstance much to be deplored, and should always be avoided, if possible, by mutual concessions, as far as they can be justified by a conscientious regard for the dictates of judgment. But in the event of its occurrence, a third physician should, if practicable, be called to act as umpire ; and, if circumstances prevent the adoption of this course, it must be left to the patient to select the physician in whom he is most willing to confide. But, as every physician relies upon the rectitude of his judgment, he should, when left in the minority, politely and consistently retire from any further deliberation in the consultation, or participation in the management of the case.

9. As circumstances sometimes occur to render a *special consultation* desirable, when the continued attendance of two physicians might be objectionable to the patient, the member of the faculty whose assistance is required in such cases should sedulously guard against all future unsolicited attendance. As such consultations require an extraordinary portion of both time and attention, at least a double honorarium may be reasonably expected.

10. A physician who is called upon to consult should observe the most honorable and scrupulous regard for the character and standing of the practitioner in attendance ; the practice of the latter, if necessary, should be justified, as far as it can be, consistently with a conscientious regard for truth, and no hint or insinuation should be thrown out which could impair the confidence reposed in him, or affect his reputation. The consulting physician should also carefully refrain from any of those extraordinary attentions or assiduities which are too often practiced by the dishonest for the base purpose of gaining applause, or ingratiating themselves into the favor of families and individuals.

PERSONALS.

We had the pleasure of a visit from our confrère and former pupil, Dr. W. E. Fairfield, Gold Medalist of Bishop's College, who has been established for some little time at Wequiock, Wisconsin, and where, we are glad to learn, he is proving no exception to the rule that Bishop's College men are never very long in making a reputation for themselves wherever they may cast their lot. He is on a pleasure trip to New York.

Drs. Ross, Roddick, Shepherd, Bell and Lapthorn Smith, the last of whom has been invited to read a paper before the Association of Gynecologists and Obstetricians, intend to leave for Washington on the 16th of Sept. The first four gentlemen will attend the meetings of the American Association of Surgeons and Physicians. They will be absent about a week.

REVIEW.

A treatise on Diphtheria, historically and practically considered, including Croup, Tracheotomy and Intubation, by A. Sauvé, Docteur en Medecine, ancien des Hopitaux de Paris, etc., etc.; translated, annotated and the surgical anatomy added ; illustrated with a full page colored lithograph and many wood engravings, by Henry Z. Gill, A.M., M.D., LL.D., etc., published by J. H. Chambers & Co., St. Louis, Mo.

The translator, Dr. Gill, must thoroughly understand French idiotinatically, and we compliment him on the success of his translation and on the many practical additions made by him, including intubation. We can highly recommend this book to any medical man, who, having to deal much with this so often fatal disease, desires to keep himself abreast of the times, not only in treatment, but with every aspect of it. It is the most exhaustive treatise we have seen dealing alone with this subject, and when we consider that over 600 authors have been consulted including those of every nation, some idea may be formed of the amount of labor expended by the author in its production.

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ELECTRICAL MEASUREMENTS.

BY A. LAPTHORN SMITH, B.A., M.D.

Read before the Canadian Electrical Society of Montreal, Sept. 3rd, 1888.

MR. CHAIRMAN AND GENTLEMEN.—It is with feelings of considerable diffidence that I accede to your request to read a paper before this Society. My object in wishing to belong to it was rather to learn than to teach; so that I feel I must throw myself wholly on your indulgence in offering you the following considerations on electrical measurements. The reason why I choose this, for me, somewhat difficult subject, was that during the succeeding meetings we will probably have the pleasure of listening to some very deep but interesting papers from some of the more learned members, in the course of which continual reference will be made to terms which to them are as plain as the alphabet, but which may be beyond the grasp of those of us who received our scientific education before the days of electricity; But first I must apologise to those who are thoroughly up in this modern science if during the course of this paper I take up a little of their time in explaining carefully things which they already know; my excuse must be found in the maxim that in addressing an audience, we should keep in our mind's eye, not the person present who knows most about the subject of which we are speaking, but the one whom we suppose to know least about it. I shall therefore hope that before I have finished my address this evening I shall have been able to make the terms, vol, ohm, ampere and coulombe familiar to every one to whom they are not as yet very clear.

If we pick up any work on electricity, whether applied to medicine, surgery, or the arts, we cannot read a page hardly without meeting with some of these words. And when, in a few years, electricity shall have completely taken the place of gas, and when motive power will be furnished from electrical stations, it will become more and more important to know the meaning of these words. Before long such terms as volt, ohm, ampere will be as common standards as gallons, pounds and inches.

As the electrical current is an imponderable fluid, we can best acquire a clear idea of its measurable characteristics by comparing it with water. Now you know that when you have a reservoir of water at a certain height above the ground, and you make an opening at the bottom of it, the water will run out, and it does not matter whether the reservoir holds one gallon or one million gallons, the pressure with which the water is forced out of the opening at the bottom is just the same.

As any one who has not thought of this might not agree with me, I will just demonstrate this fact by means of these two reservoirs, both the same height, the one of which contains exactly three times the amount of the other. I place them side by side and open the tubes at their bottoms simultaneously, and you will perceive that the pressure or force with which the water escapes is just the same in one and in the other at the beginning, and as long as the two liquids are at the

same height, as evidenced by the distance to which the stream is thrown. But you will also remark that the flow will last three times longer from the large reservoir than from the small one.

When speaking of the energy with which water rushes from its reservoir, we call it pressure, and the pressure varies with the height of the reservoir. When the top of the water in the reservoir is 33 feet above the opening at the outlet, we say that there is pressure of an atmosphere, or in other words 15 pounds to the square inch. The pressure depends not at all on the size of the reservoir, but on the height of the liquid above its outflow. Allow me to illustrate this by putting side by side two reservoirs, one of which, as in the last experiment, contains three times as much water as the other, but in this case arranged differently, viz., each quantity on top of the other. If I now open the outlet tubes, you will see that the pressure is three times greater, as evidenced by the distance to which the stream is projected, or the rapidity with which it could be made to turn a wheel.

You will also remember that if we were to connect the outflow tube with another reservoir, the current will continue only so long as there is a difference in level between the surfaces of the two liquids.

There is just one other point which I must ask you to remember, and that is that given two reservoirs of the same height, or endowed with the same energy or pressure, the outflow will be in proportion to the resistance offered by the narrowness of the tube.

This can be shown by the following experiment: Here are two reservoirs of the same capacity and with the same pressure. To one is attached a tube of a certain length, and to the other one a much longer tube of, however, the same diameter.

The pressure is the same in the two reservoirs, but the friction or resistance offered by the outlet tube is greater in the one than in the other. The resistance of water in the tube varies with the diameter and the length of the pipe.

Let us take again two reservoirs each containing the same quantity of liquid. The outflow from these vessels will vary according to the pressure and the resistance of the tubes. In other words, the outflow per minute will be the pressure divided by the resistance.

When water is travelling along a pipe of large calibre, and suddenly comes to a much smaller one, the resistance is greatly increased.

All of these principles are exactly applicable to electricity: only some of the words are changed. For pressure substitute electromotive force; resistance remains the same; and for outflow substitute quantity or volume.

As I have already said, electromotive force in electricity corresponds with head or pressure in speaking of water. When we place an easily attacked metal such as zinc in an active liquid such as sulphuric or hydrochloric acid and water, the latter is decomposed into its constituents—hydrogen and oxygen. The oxygen combines with the zinc to form with the sulphuric acid sulphate of zinc, and the hydrogen is set free. A new form of energy called electromotive force is then created, or rather the energy put into the zinc when it was smelted by heat is converted into electromotive force. In order to collect this force and lead it out of the bottle in which it is formed, it is necessary to introduce therein a non-attackable conducting body such as carbon or copper.

The liberated hydrogen follows the direction of the current which is from the attacked to the non-attacked substance; but arriving at the carbon it deposits itself there in the form of small bubbles, which after a time completely cover it. And as gas is a very bad conductor of electricity, the current is mechanically hindered by it.

Not only that, but the hydrogen, being itself an element, is capable of setting up with the newly formed oxygen a secondary gas battery current, called a current of polarization of opposite direction to the principal current, which it rapidly weakens. As this hydrogen must be got rid of, this is accomplished in the following manner: An easily decomposable substance is introduced into the circuit, which readily gives up its oxygen to the nascent hydrogen, with which it forms water.

In the Daniell cell, sulphate of copper is thus used.

In the Marie Davy cell, sulphate of mercury is used.

In the Leclanche cell, peroxyde of manganese is used.

In the Bunsen, nitric acid.

In the Grenet battery, bichromate of potash.

In the Leclanche cell for the attacking fluid no acid is used as acid, but the acid is supplied gradually by the decomposition of hydrochlorate of ammonia, a compound which is easily decomposed by the current into ammonia and hydrochloric acid, which latter attacks the zinc, and the ammo-

nia escapes into the air. The great advantage of this battery is that the attacking liquid is formed only when the circuit is completed, and the battery only burns itself up during the time it is actually in use. At the same time its electromotive force is high, namely, one and a half volts. The Smée cell gives ½ a volt; the bichromate 2 volts; the Bunsen nearly 2 volts.

Now just as we measure steam or water power in pounds per square inch, and heat by thermometric degrees, electromotive force is measured by volts. A volt is the pressure yielded by a galvanic cell, the Daniel cell being taken as the standard unit. The size of the cell has nothing to do with its electromotive force; a cell the size of a percussion cap will give an electromotive force as high as a cell a yard in diameter.

Electromotive force depends on difference of potential.

The difference of potential exists in all dissimilar electrified bodies, whether they are large or small makes no matter; just as the fact that pressure of water due to its flow from a reservoir to a plain beneath is not influenced at all by the area of the receiver, but by the height of the water level above the plain.

As I have shown, water pressure is the same per vertical foot of height, whether the column at its base is a square foot or a square mile in area. The two bodies in the cell are at different potential, therefore the current flows from one to the other from the attacked to the unattacked, through the liquid which surrounds them, and then back to the attacked body through the wire.

The galvanic cell converts chemical action into electricity by burning the zinc, just as the steam boiler converts coal into energy by the chemical action of combustion. If in the galvanic cell we burn twice as much zinc in a given time, we shall have a current twice as strong, but not twice as intense; we can do this by making the surface of the zinc twice as large.

Thus you see that while the size of the bodies in the cell has no bearing on the pressure of the current, it has a material bearing on the strength of it.

So that when we want high pressure electricity, we put into the cell bodies which are, or will be when attacked, of highly different potential. When we want great strength of current we look to their dimensions. All Leclanche cells have the same pressure, whether big or small. If we take two Leclanche cells, different sizes, the tensions or pressures of the two currents are precisely the same; but if we harness these two currents to some work, mechanical or chemical, such as the decomposition of water, the result will vary according to the volume of the cell. In practice, however, we do not make large cells chiefly because they are cumbersome and difficult to handle. We can increase either the electromotive force or the strength of the current by using several cells of the same size and connecting them together differently. If we connect them in a series of tension, that is the attacked element of one to the unattacked element of the other, and so on, we shall add together the electromotive force of each, while the strength of the current will remain the same as that of one cell, if however we connect all the attacked elements of the four cells, say, to one wire, and all the unattacked ones to the other, we shall have quadrupled the size of the element, and we shall have a current four times as strong, while its pressure will remain at one volt.

RESISTANCE.

When the current in a cell travels from the attacked to the non-attacked element, through the liquid in the cell, it meets with resistance; and so also when the current travels around from the non attacked element to the attacked element, by the wire outside of the cell, it meets with resistance still further. There are then two places where the current meets obstacles,—one inside the cell and one outside of it. The resistance offered by the liquid inside the cell is known as the internal resistance, while the other is known as the external resistance. The internal resistance is so much lost energy, so that we should endeavor to make it as small as possible, by bringing the solid elements in the cell as near together as possible.

For this reason the conglomerate battery is an improvement over the one with porous pot.

The external resistance we can control, it may be due to many miles of telegraph wire, the coils of an electromotor, or the filament of an electric lamp, the human body, or to any other path we provide for the current, in traversing which it does the work we desire.

The unit of resistance is called an ohm, in honor of George Simon Ohm, who was born at Erlangen in 1781.

The standard ohm is the resistance offered by a column of mercury, 106 centimeters long and one millimeter in cross section, but there are many other ways of getting an ohm of resistance. For instance, 440 feet of telegraph wire made of galvanized iron offers a resistance of 1 ohm.

On the other hand, less than five feet of No. 33 pure copper wire gives a resistance of 1 ohm. I can demonstrate this with the amperemeter. I have here 19 feet of 33 wire, which should give a resistance of 4 ohms. I have also a Leclanche cell which has been weakened down by hard work to an electromotive force of 1 volt, the normal electromotive force being nearly one and a half. Now 1 volt through 1 ohm should give one ampere, or 1 volt through 4 ohms should give one-fourth of an ampere, and this is precisely what it gives by experiment.

No. 40 wire being much finer, the resistance which it offers is much greater; in fact, less than 1 foot of it offers a resistance of an ohm. Or to put it to the test, less than 4 feet should give 4 ohms or allow $\frac{1}{4}$ of an ampere to pass through. And this you see it does.

1 volt, through 1 ohm, gives 1 ampere; 60 volts through 60 ohms gives 1 ampere.

The human body gives a resistance of 50 to 200 ohms.

A 16 candle power incandescent lamp gives a resistance of 50 or 60 ohms.

Resistance depends on two things: on the nature of the conducting body interposed between the poles, being greatest in glass and least in copper; and secondly, resistance depends on the length and calibre of the conductor; the longer and smaller it is the greater will be the resistance, the shorter and thicker it is the smaller will be the resistance. Thus while it only takes less than a foot of the smallest size wire No. 40 to give an ohm, it would take over 20 thousand feet of the largest size No. 1000 to offer the same resistance.

On the resistance of different conductors is based ohms law, viz., that the intensity of a current is equal to the electromotive force divided by the resistance.

The ohm meter consists of a series of resistance coils of fine wire, of varying length and fineness, arranged with binding posts, so that the current can be thrown into a 10, 20, 100, 1000, or 10,000 coil and of different metals (such as German silver).

QUANTITY.

Ohm's law, as I have said, is that the electromotive force divided by the resistance equals the quantity. The quantity of current furnished by 1 volt of pressure through one ohm of resistance is called an ampere.

An ampere is too large a current to be used in medicine, so it has been divided into milli-amperes or thousandths of an ampere. According to ohm's law, 1 volt. through 10 ohms would give $\frac{1}{10}$ of an ampere or 100 milli-amperes, or 20 volts through 100 ohms would give 20-100 or $\frac{1}{5}$ ampere or 200 milli-amperes. The resistance of the body is sometimes as high as 200 ohms, and as each Leclanche cell has an E. M. F. of 1½ volts, it would take a little less than 28 cells or 40 volts to give $\frac{1}{5}$ of an ampere through the body.

A coulombe is an ampere flowing during the period of one second, but it is a term which is only beginning to come into general use.

RARITY OF TAENIA IN THE COUNTRY.

Read at the July (1888) meeting of the District of Bedford Medical Association

By A.D. Stevens, M.D.,
Dunham, Que.

Mr. President and Gentlemen:—I was yesterday reminded by a confrère that my name was mentioned, among others, by the Chairman at the last meeting, to read a paper on this occasion. We now and again see it stated by Journalists, when soliciting contributions, that the daily life of almost every active medical man furnishes material for a subject which may be made interesting to readers or listeners. Whatever truths you may have found in this statement I cannot say; but, with ample notice and a more or less active practice, I confess I am quite at a loss to decide upon a subject worthy of your attention. Nothing has occurred in my field of observation, for some time past, that possesses sufficient novelty or significance to relate within your hearing, unless it be, perhaps, a case of tape-worm or taenia.

I do not pretend to know the range of experience of the gentlemen who are with us to-day, but I may say that so far as my own work is concerned, tape-worm has been found exceedingly rare,—so rare, in fact, that the one I am about to refer

to is the first and only one I have had the management of during my now somewhat lengthened professional career; and even this could hardly prove its origin to have been in the Townships, as the man (the owner of it) had only recently put foot on Canadian soil after a prolonged residence in the Town of Milton, Vermont. Hence I conclude this species of parasite is not of such frequent occurrence in the Townships as it is in some other portions of the world, and I choose the case.

I am not aware that there has been of late any additions made to previously existing literature upon this feature of the subject of Helminthics and shall not mention any point, in connection with it, not believed to be necessary to an intelligent recital of the treatment of the case, as well as the results obtained.

About a couple of months ago, a man, aged about sixty years, and of fairly healthy appearance, consulted me with reference to a supposed digestive trouble manifesting itself by frequent colicy pains in the intestines, of a severe character. Otherwise, he said, the functions of the body were being carried on as well as he could desire. Without in any degree suspecting that, after these long years of waiting, I had been suffered to contend with a case of genuine tape-worm, I gave him a full dose of compound cathartic pills, and told him to return in two or three days. When he came back, however, he was the bearer of a vial that contained several fleshy-looking substances that he had voided, and which, unenlightened as was, I, your humble servant, I had no difficulty in recognizing as zooids or *links* of a tape-worm. The good man seemed a little frightened at first on seeing what had escaped from him (or rather what he had escaped from); but after a full explanation that it was neither a serpent nor a flattened cord, he became more hopeful (and asked for a little nourishment). With the exception of some of the remedies of doubtful reputation, it may well be suspected, from what I have said before, that I had nothing to give him. But I was equal to the occasion (as I am sometimes). In order to gain time to get a prescription from the druggist, I gave him a very highly colored liquid in a very highly ornamented vial, told him to follow directions minutely, and put in an appearance in four or five days again. The *record* of the Male Fern seemed to me to be the best. In fact, pumpkin seeds were not to be thought of. They were out of season, and too democratic. Filix Mas sounded well, and besides it had the advantage of being of purely British origin, and it did the work well, as you will presently see. To be more serious, however, I caused to be put up *three* doses of the following:

℞	Fl. Ext. Filicis	ʒ js
	Spts. Terebinth	ʒ js
	Ovi vitelli T	Misce

et adde aquæ et syrupi q. s ad ʒ ij—Fiat haustus, mane sumendus. He was directed to take a full dose of castor oil on retiring at night, and, in the morning, after a thorough evacuation of the bowels had been secured, to take *one* of the three doses as above, and carefully preserve every thing suspicious that passed until I came and examined them.

From all I had heard and read of tape-worm, I had been led to believe that it was only after specially skilled, professional search that the head could be found, if expelled at all; and as I knew its discovery was a *sine qua non* to success, I kept my eyes wide open.

Whether my case was an exceptionally easy one to conduct or not, my previous experimental acquirements do not warrant me in giving an opinion, or, whether I even obtained the prize at all, it must be admitted is of doubtful accuracy.

But whatever may have been my doubts and fears as to getting that part of the worm, which should contain whatever brain material he possessed, they proved, I fancy, like so many other things mundane, to be without foundation and illusory. The good natured man's fourteen years old granddaughter, to whom I had previously parted with a large amount of my own knowledge, was possessed of the peccant intruder, brains and all, before the man at the helm reached the field of conflict. There did not seem to be much doubt of it, but it must be remembered that neither the young lady nor myself were put under oath.

These Entozoa are said to have grown sometimes to enormous lengths—even as much as one hundred yards having been reported in one case; but in the instance under consideration, although I did not arrange the joints or zooids in line, so as to measure or count them, I am not disposed to place the length beyond four or five yards. Then again, we have good authority for urging the necessity of providing against the possibility of there being several such organisms in the same

subject. To make sure that my work was complete—that I had secured the whole—I told the patient to take the *second* dose, in the same manner, on the following day, while, at the end of a week, he was directed to take the *third* and last dose, carefully guarding everything that came away after each effort.

As, by this time, our friend had become tolerably well familiarized with his interesting fellow-traveller, which had for so long and so affectionately adhered to him closer than the proverbial brother, I did not think it worth while to return to the scene of action, and instructed him to report himself at my quarters, bearing anything of an unfriendly look that might be expelled. He has not, however, put foot into my sanctum up to this date, and it is only reasonable to conclude there were no more.

And now, Gentlemen, having thus briefly told the story of my own experience in tape-worm, no matter how triflingly I may have treated the subject myself, I would like to hear your own especially whether, as I fancy is the case, the worm has been met with as seldom by you as my own observation would lead one to believe,—I would also be pleased to know your treatment and success, should you have happened to meet with the parasite at any time in your fields of labor.

Society Proceedings.

TWENTY-FIRST ANNUAL MEETING OF THE CANADIAN MEDICAL ASSOCIATION.

PARLIAMENT BUILDING, OTTAWA, ONTARIO.
September 12th & 13th, 1888.

Dr. J. E. Graham, Toronto, President, took the chair at 10 o'clock, and formally opened the twenty-first annual meeting of the Canadian Medical Association. In introducing Dr. George Ross, as President elect of the Association, he expressed the great pleasure it afforded him in doing so, and said :—"I think we can congratulate ourselves upon the prospects of having a very pleasant and profitable meeting, and upon the fact that we have selected as President for this year a gentleman who is in every way capable of fulfilling the duties of that office. Dr. Ross is one of the leaders of the profession in the largest city of the Dominion, and his reputation is not alone confined to that city but to the Dominion at large."

Dr. George Ross, (Montreal) then took the chair.

The Secretary, Dr. James Bell (Montreal), read the minutes of the last meeting of the Association which were approved of.

ELECTION OF MEMBERS.

The following gentlemen having been duly proposed and seconded, were unanimously elected members of the Association:

Dr. Allen Baines, Toronto, Ont. ; Dr. W. l'Anson, Ottawa ; Dr. M. C. McGannon, Brockville ; Dr. Thos. Potter, Ottawa ; Dr. W. C. Cousens, Ottawa ; Dr. B. F. Hurdman, Ottawa ; Dr. S. Wright, Ottawa ; Dr. C. J. H. Chipman, Ottawa ; Dr. A. H. Horsey, Ottawa ; Dr. J. W. Shillington, Ottawa ; Dr. W. F. Graham, Ottawa ; Dr. C. P. Dewar, Ottawa ; Dr. W. H. Klock, Ottawa ; Dr. T. L. Brown, Melbourne, Que.

NOMINATING COMMITTEE.

The following gentlemen were selected as members of the nominating committee :

Drs. F. W. Campbell, T. G. Roddick, Montreal ; J. E. Graham, Wm. Caniff, Toronto ; Dr. Bray, Chatham ; Drs. Sweetland and Church, Ottawa ; Drs. Griffin and Mullin, Hamilton ; Dr. Eccles, London ; Dr. Fenwick, Kingston ; Dr. Baird, Pakenham ; Dr. Smith, Seaforth ; the President and Secretary.

SELECTION OF OFFICERS FOR SECTIONS.

The following gentlemen were selected :—

Chairman of Medical Section..Dr. Bray, Chatham
" Surgical Section...Dr. Cameron, Toronto.
" Obstetrical and Gynecological Section...Dr. Trenholme, Montreal.

GENERAL BUSINESS.

Dr. Graham pointed out that, last year, a committee was appointed, the object being to endeavor to further the interests of this Association, and to present a report of this meeting, but that owing to the absence of Dr. Stewart, ex secretary, in Europe this summer, nothing has been done by that committee. He said that it was felt that this Association was not in such a flourishing condition as it ought to be, and that it did not hold the sympathy of the profession throughout the Dominion ; also,

that the By-Laws are found to be very deficient. He therefore suggested that another committee be appointed with the view of bringing in a report at the next annual meeting that would be of advantage to the Association

Dr. Roddick moved, seconded by Dr. Bray, that Dr. Graham, Dr. Ross (President) the President elect, the Secretary and Treasurer, form the committee.—Carried.

RECIPROCITY OF REGISTRATION.

Moved by Dr Girdwood, seconded by Dr. Roger, that a committee be appointed, consisting of Drs. Wright, Campbell, Sullivan, Bray, Eccles, Milne and himself, to ascertain the feeling of the different Medical Councils of the Dominion, upon what terms reciprocity of registration may be obtained between the different provinces, and the mother country and other colonies.

He stated that on making enquiry in regard to reciprocity of registration with Great Britain, he was informed that before registration could take place, it would be necessary to have an Order-in Council passed making a new law of reciprocity of registration applicable to Canada. Reciprocity takes place between Great Britain and Australia, and he thought that we might very fairly have reciprocity of registration between Great Britain and this colony. He also remarked upon the want of harmony existing between the Medical Councils of the different provinces in not allowing members to practice in any province in the Dominion.

Drs. Bray, Mullin, Campbell, Sheard and Cousens spoke in discussion.

Motion carried.

The President read his address.

A vote of thanks for his able address was moved by Dr. Workman, seconded by Dr Campbell, and carried.

Sir James Grant spoke in support of the motion.

The meeting adjourned until 2 o'clock.

JAMES BELL, M.D.,
Secretary.

Approved.
GEO. ROSS.

NOMINATING COMMITTEE.

The meeting of the nominating committee took place immediately after the adjournment of the general meeting.

On motion of Dr. Bray, seconded by Dr. Sweetland, Dr. F. W. Campbell was elected chairman.

The following members of the commitee were present:

Dr. Roddick, Dr. Graham, Dr. Bray, Dr. Sweetland, Dr. Church, Dr. Mullin, Dr. Smith, Dr. Ross, president; Dr. James Bell, secretary.

ELECTION OF OFFICERS.

President of the Association.—

The committee recommend that Dr. H. P. Wright, Ottawa, be re-elected President for the ensuing year.

Secretary.—

That Dr. James Bell, Montreal be re-elected Secretary.

Treasurer.—

A letter of resignation from Dr. Sheard was read by the Secretary.

That Dr. W. H. B. Aikins, Toronto, be appointed Treasurer.

The committee recommend that the resignation of Dr. Sheard as Treasurer be accepted, and that a hearty vote of thanks be passed to him for his services during the past seven years in that capacity.

Local Vice-Presidents.—

The committee recommend that the following be elected:—

Ontario, Dr. Chas. Sheard, Toronto; Quebec, Dr. F. W. Campbell, Montreal; New Brunswick, Dr. Graham, Bathurst; Nova Scotia, Dr. Ed. Farrell, Halifax; Manitoba, Dr. Lynch, Winnipeg; British Columbia, Dr. J. M. Lefevre, Vancouver; N. W. Territories, Dr. Jukes, Regina; P. E. Island, Dr. Jenkins, Charlottetown.

Local Secretaries.—

Ontario, Dr. Griffin, Hamilton; Quebec, Dr. A. N. Worthington, Sherbrooke; New Brunswick, Dr. Kellar, Fredericton; Nova Scotia, Dr. Webster, Wolfville; Manitoba, Dr. A. H. Ferguson, Winnipeg; British Columbia, Dr. Milne, Victoria; N. W. Territories, Dr. Oliver C. Edwards; P. E. Island, Dr. McLaren, Georgetown.

The committee recommend that the next annual meeting be held at Banff, N. W. T., in the early part of August, 1889.

That $100 be granted to the general secretary.

F. W. CAMPBELL,
Chairman.

MEDICAL SECTION.

OTTAWA, September 12, 1888.

Dr. Bray, Chatham, in the Chair.

It was moved, seconded and carried, that Dr. Sheard, Toronto, be appointed Recording Secretary.

Dr. H. P. Wright, Ottawa, was then called upon to read his Address in Medicine—but being absent, Dr. Caniff, Toronto, was asked to read his paper upon "The duty of the Medical profession under the Public Health Act of Ontario." A telegram was received from him stating his inability to be present, and Dr. Mills, Montreal, was called upon to read his paper on "The influence of the nervous system on the nutritive processes." He began his subject by referring to a synopsis of a paper read by him last year on a new basis of improved Cardiac Pathology, which developed the theory that all the nutritive processes were constantly under the influence of the nervous system. He explained metabolism as the molecular life of protoplasm, and regarded the organic action of the nervous system, or nerve with the tissue element, as regulating these processes. He proved that nerves going to bone, on being divided, caused atrophic changes in the bone, a change called by Charcot, Acute Necrobiosis. He also referred to certain affections of the skin following nerves which he traced to similar nervous lesions. He spoke of the cause of death in animals, after section of the vagi nerves, as being due to pneumonia, which was an inflammatory process due to the severance of the nerve connection. On birds, section of nerves in connection with the heart was followed by its fatty degeneration. He discussed the influence of the Trigeminus nerve, also the inhibitory fibres, and sympathetic fibres, due wholly to interference with nutrition. He referred to the emotions, and their influence on vital processes as being such, and also dwelt upon the training of athletes, stating that over exertion called into play, and used up, the residual nerve force.

Dr. Mills' paper was discussed by Dr Playter, of Ottawa, and Drs. Sheard and Graham, Toronto. Dr. Graham asked Dr. Mills to explain the influences to the cause which accelerated heart's action. Dr. Mills promised to do so after he heard Dr. Graham's paper on "A case of extreme rapidity of the heart's action." Dr. Small, Ottawa, also spoke in reference to the nervous influence on the movements of the Amoeba, and Dr. Campbell and others took part in the discussion, to all of which Dr. Mills replied satisfactorily.

Dr. Wright, Ottawa, then explained the absence of any special Medical Address, as he did not clearly understand what the meeting expected of him.

The Section then adjourned to meet at 10.30 a.m. Thursday.

CHARLES SHEARD, M.D.,
Secretary.

SURGICAL SECTION.

OTTAWA, September 12th, 1888.

Dr. Clarence Church, Chairman.

Dr. Proudfoot, Montreal, read notes of a case of "Excessive hemorrhage after cataract extraction, into the anterior chamber of the eye." No Anæsthetic was used, and no iridectomy made. Pressure was made over the globe by compress and bandage, which were removed next morning, owing to great pain, and an atropine solution dropped into it. Hemorrhage continuing, pressure was re applied with boracic lotion, and morphia given for the pain, which was very severe. Hemorrhage continuing on the eleventh day, enucleation was performed, and on dividing the globe, the point from which the hemorrhage came was found to be in the Retina. No reason could be given for the troublesome hemorrhage, excepting that the patient was very plethoric and a drunkard. No discussion followed the reading of this paper and the Section adjourned to meet at 10.30 a.m. Thursday.

A. H. HORSEY, M.D.,
Secretary.

OBSTETRICAL AND GYNÆCOLOGICAL SECTION.

OTTAWA, September 12th, 1888.

Dr. Trenholme in the Chair.

Dr. Alloway, Montreal, read a paper on "The indications for, and comparative merits of Emmet's and Schroeder's methods of operating upon the Cervix Uteri." This paper gave rise to an interesting discussion upon the subject. Dr. Gardner spoke in favor of Schroeder's operation as compared with Emmet's in cases of extreme hypertrophy of the neck, and inflammation of the mucous membrane. It enables disease to be removed where Emmet's fails on account of the stitches

being unable to approximate the edges together after an operation. Dr. Trenholme favored Emmet's operation in all cases, except in very extreme ones of hypertrophy and inflammation accompanied by glandular disease of the follicles where Emmet's operation was not available, but thought that in very few cases would this be found necessary, if the tissue was pared away well towards the cervical canal, leaving a narrow border by which tissue could be obtained. Pressure upon the hypertrophied parts afterwards would lead to the formation of the natural Cervix. In no case were we warranted in amputating the Cervix, if it could be avoided.

The general sense of the meeting was that it was much indebted to Dr. Alloway for bringing the subject up, and that the operation of Schroeder should be resorted to only in extreme cases.

THURSDAY, September 13, 1888.

The meeting opened at 10 o'clock. Dr. Ross, President, in the Chair.

Dr. G. H. Oliver, Delegate to the Association from the Medical Society of the State of New York; Dr. Wallis Clark, of Utica, N. Y., and Dr. Imrie, of Detroit, Mich., were introduced by the President, who, on behalf of the Canadian Medical Association, welcomed them.

Dr. Henderson, Kingston, President of the Ontario Medical Society, was invited to a seat upon the platform. He expressed the pleasure it afforded him to be present at this meeting, and said that as the representative of the Ontario Medical Association he felt sure that any friendly sentiments conveyed to that Association through him would be heartily reciprocated. It will always be his duty to promote that unity and concord which should exist between the Ontario Medical Society, the local societies and this Dominion Association. He referred to the re-formation in Kingston, a short time ago, of the Cataraqui Medical Society, which is now affiliated with the Ontario Medical Society, and which has sent two delegates to this meeting, and hoped that such a society will be formed in Ottawa, and elsewhere, with the view of forming a connecting link between the local society and this Association.

The following gentlemen were elected members of the Association:—

Dr. W. J. Burns, Caledonia; Dr. Wallace, Metcalfe; Dr. Preston, Carleton Place; Dr. Lynch, Almonte; Dr. Munro, Perth; Dr. Sutherland, Valleyfield, Que.; Dr. Burns, Almonte; Dr. Milne, Victoria, B. C., and Mr. Davis, Chelsea, Que.

The President referred to the great pleasure of seeing present a representative from such a distant province, and upon the suggestion of Dr. Proudfoot, invited Dr. Milne to a seat upon the platform.

REPORT OF NOMINATING COMMITTEE.

On motion the Report of the Nominating Committee was received and considered clause by clause, and was unanimously adopted.

The thanks of the Association were tendered to Dr. Sheard for the long and valuable services rendered to the Association as Treasurer.

Dr Mullin having called attention to the fact that no allowance was made to the Treasurer for travelling expenses, etc., it was moved that the travelling and other expenses of the Treasurer, Dr. Sheard, for this year, and that of 1887, be defrayed by the Association.—Carried.

On the suggestion of the Committee, that the next annual meeting be held at Banff, N. W. T., a general discussion ensued.

Invitations were extended to the Association to hold its next annual meeting at London, Ont., by Dr. Eccles; at Toronto, Ont., by Drs. Sheard and Graham, and at Victoria, B. C., by Dr. Milne, and a letter received by Dr. Ross from Lucius Tuttle, Passenger Traffic Manager of Canadian Pacific Railway Company at Montreal, dated September 11th, 1888, was read, stating that if the Association desire to meet at Banff, a trip will be given from Montreal, or from other Stations in Ontario or Quebec on the line of the Canadian Pacific Railway to Banff and return, first-class, including a double berth in the sleeping car for each person, meals in the dining cars on the way west of Montreal and back, and four days living at the Banff hotel, for a round sum of $95, and that similarly low rates will be made from other points in Canada, and as far as possible from cities in the United States.

Dr. Walker, Dundas, moved in amendment to the Report of the committee that the Association meet next year at Toronto to receive the President's Address, and then adjourn to meet at Banff for the transaction of other business. Dr. Horsey, Ottawa, seconded the amendment.

Dr. Mullin, Hamilton, moved in amendment to the amendment, seconded by Sir James Grant,

that the next meeting of the Association be held at Toronto on such date as may be deemed advisable by the officers of the Association, and that, in addition, an excursion to Banff be organized by them to take place immediately after the meeting.

The amendment to the amendment, and the amendment to the Report of the Committee were lost on division, and the recommendation of the committee carried that the next annual meeting be held at Banff in the early part of August, 1889.

Dr. Bray, Chatham, moved, seconded by Dr. Trenholme, Montreal, that the Executive make satisfactory arrangements with the railway authorities for members to go to the end of the line.—Carried.

Dr. H. P. Wright, Ottawa, thanked the Association for the honor conferred upon him in electing him President for the coming year.

The meeting then adjourned to meet in Sections.

JAMES BELL, M.D.,
Secretary.

MEDICAL SECTION.

Thursday, September 13th, 1888.

Morning Session.

Dr. Bray in the Chair.

Dr. Graham, Toronto, was called upon to read his paper on a case of extreme rapidity of the heart's action. He reported two cases, one of which was characterised by a rapid beating of the heart, the beats numbering over 140, and being uncountable. His illness lasted three weeks, and the peculiar features in the clinical history were the absence of dyspnœa, the absence of renal changes, discoverable on examination of the urine, and any physical signs directly referable to the lungs. The case was treated by rest, regulation of diet and the administration of digitalis, and after a comparatively short treatment, the patient recovered his accustomed health. The second case was more prolonged and peculiar in the fact that continued muscular exertion reduced the heart's beat to normal. This had been discovered by him only after repeated examinations, and during a period of rest, the heart again became accelerated. There was nothing in this case to account for such acceleration.

Dr. Mills explained in extenso the influence of the cardiac nerves upon the heart's action, dealing mainly with the sympathetic and vagi. He spoke also of embolism in the coronary arteries as a possible cause of such acceleration. He referred to blood pressure, as slowing the heart's action rather than accelerating it. Dr. Sheard discussed the case, and suggested embolism, or toxic matter in the blood as a possible cause for such acceleration, and referred also in commendation of digitalis as a method of treatment, particularly the infusion of digitalis. Dr. Mullin thought it was an important case, and had direct bearing upon the importance of acceleration of the heart as affecting a life insurance risk. He would like to ask Dr. Graham what influence he thought such acceleration of the heart would have in shortening the ordinary duration of life. Dr. Milne, Victoria, also spoke, referring to a case of modified heart's action associated with tetanus, and stating that such cases were evidently due to a close association between the nervous and cardiac action.

The section then adjourned to meet at 2 o'clock.

CHARLES SHEARD, M. D.,
Secretary.

SURGICAL SECTION.

OTTAWA, Thursday 13th, 1888.

Morning Session.

Only one paper was read at this session, that by Dr. Fenwick, of Montreal, upon Retropharyngeal Tumors. The operation is formidable and its literature rather scanty. Dr. Cheever, of Boston, Mass., appears to have been the first who operated on these tumors. Velpeau operated in 1836 on a large tumor, operating by the mouth, tying the common artery first. The patient died on the seventeenth day. Dr. Fenwick was early convinced that operating from the outside is the correct method. These tumors are usually sarcomatous or cancerous, and in a large majority of cases recur. Dr. Fenwick then proceeded by diagrams to illustrate Dr. Cheever's method by cutting from without. A long, straight incision is made, beginning on a level with the lower border of the ear, and extending down the neck in the line of the great vessels. If sufficient room is not thus given, he makes a transverse incision from the straight incision across the jaw. The jaw is not divided, the vessels and nerves are drawn aside, and the tumor enucleated in the usual way. Czerney's operation is modified from Cheever's. He opens the trachea and keeps up respiration in this way during the operation. He divides the jawbone

between the second and third molar, and in getting down to the tumor, has to sacrifice the chief nerves and vessels in that region. He then removes the tumor with a hot knife. Dr. Fenwick then described his own operation by a curved incision following tolerably well the line of the angle of the jaw. In two cases, the operation was easy, no vessels or nerves of importance were divided, except the facial nerve in one case. The bleeding in both cases was practically nil.

Dr. Sheard thought that the distinction ought to be made between cancerous and sarcomatous tumors. He thought cancerous tumours, which were not neglected, required a more serious operation, and that more room should be given, as they could not be removed solely with the finger without dissection.

The section then adjourned until 2 o'clock p. m.

R. W. Powell, M. D.,
Secretary.

Thursday, Sept. 13th, 1888.

Dr. Smith, Montreal, delivered his paper upon "Some minute but important details in the management of the continuous current in the treatment of Fibroid and other diseases of the Uterus." He insisted upon attention to the antiseptic treatment, and upon performing all the operations with care. The results in his own hands had been very satisfactory. He recommended the Electrode of Dr. Inglemann in preference to Apostoli's clay electrode. The different forms of Electrode of sounds were shown, and that of Martin he favored most, as being the least expensive, and, at the same time, serving the purpose. He referred to the necessity of exact dosage, and the after care of patients where much electricity had been used.

This paper led to a very interesting discussion as to the field for which it was intended to be useful. Dr. Trenholme, Montreal, favored an antiseptic method apart from irrigation, simply advising that the vaginal passage be washed out with soap and water, and a plug of antiseptic cotton left in contact with the Cervix, when the sound was removed. Other members took part in the discussion.

The session was then brought to a close.

MEDICAL SECTION.

Afternoon session.

Dr. R. P. Howard, Montreal, read an interesting paper on Opthalmoplegia Externa, illustrated by diagrams. He spoke of a case of Opthalmoplegia Externa, and explained as a cause the close association of the cerebral centres. He referred to cases recorded where both Opthalmoplegia Externa and Interna had been caused by hysteria. He noted also the association of this condition with locomotor ataxia and pseudohypertrophic muscular paralysis. He was convinced, however, that Opthalmoplegia Externa could exist without such association. He also discussed the relation of syphilis to this ocular disease.

The paper of Dr. Campbell, Seaforth, "Myxœdema, with report of a case," was taken as read, and accepted.

Dr. Playter, Ottawa, read a paper on a few facts relative to Communicable Diseases in man and animals, especially as brought out at the recent Paris Congress and British Medical Association, referring particularly to Tuberculosis. His paper was listened to with much attention, and was discussed.

The Medical Section then adjouned.

Charles Sheard, M. D.
Secretary.

SURGICAL SECTION.

Afternoon session.

Dr. Bell, of Montreal, read a paper on "Exostosis Bursata," in which he gave the notes of a case which he believed to be the only one reported by an English speaking surgeon. Dr. Shepherd, Montreal, referred to the great rarity of the disease and drew attention to the explanation which was offered of the existence of floating cartilages in the joints

Dr. Shepherd followed with a paper on Mania following operations. He reported six cases. Dr. Bell, in the discussion which followed, related two cases, in one of which he attrbuted mania to the use of Iodoform. He asked if there were any cases on record due to Iodoform. Dr. Buller related his experience of one case of mania following the operation of a cataract. Dr. Dickson, of Pembroke, asked Dr. Shepherd, if mania from Iodoform would be apt to occur in the use of the drug when applied to small surfaces. Dr. Shepherd replied that the danger would be greatest when Iodoform was applied to a large surface, as, for instance, to the interior of a large abscess cavity.

Dr. Buller then made a few remarks on Penetrating Wounds of the Eye Ball. Dr. Proudfoot

related a case of a penetrating wound of the eye-ball produced by a pen. He agreed with Dr. Buller as to the urgency of an immediate and prompt treatment, and cleasing the wound. In reply to Dr. Dickson, Dr. Buller advised, for the control of inflammation, the application of cold to be changed to warm applications with antiseptic solution of bi-chloride of mercury one part in 10,000, and one or two doses of 10 or 15 grains of Antipyrin.

Dr. J. Stirling, Montreal, followed with a paper on some eye symptoms due to Cerebral Lesions. Dr. Buller said that in cases of fracture of the orbital plate, the blindness may be due to infiltration of blood in the sheath of the nerve, and reported a case which had occurred in his practice of that nature.

Dr. A. Lapthorn Smith's paper on the treatment of Varicocele and Orchitis by the electrical current of tension was then read; also a paper by Dr. Smith on a case of Resilient Stricture of the Urethra cured by electricity. Dr. Dickson enquired if Dr. Smith had ever used the treatment in neuralgia, sciatica, or enlarged prostate. Dr. Buller suggested the decomposition of water as an easier method of determining which is the negative pole. Dr. Smith, in reply to Dr. Dickson, said that the use of a continuous current would probably prove useful in the enlargement of the prostate. In reply to Dr. Church, Dr. Smith said that his cases had been under observation for a considerable time and certainly after a lapse of three years might be considered cured. Dr. C. Dickson, Kingston, said that in his large experience in the use of electricity in neuralgia, he had found the negative pole of tension often increased the pain, especially if any neuritis existed.

J. W. PICKUP.
Secretary.

GENERAL MEETING.

THURSDAY, 6 o' clock p. m.

Dr. Ross, President, in the Chair.

The minutes of the last session were read and approved.

Moved by Dr. Milne, Victoria, B. C., seconded by Dr. Sweetland, Ottawa, that in view of the apparently increasing prevalence of tubercular disease in domestic animals, more especially in cows, it is the opinion of this Association that it is desirable that some legislative action should be taken by the Dominion Government to check the progress of the disease, and we urge that the Government take this matter under their consideration at as early a date as possible.—Carried unanimously.

Dr. Mullin, seconded by Dr. Smith, that the cordial thanks of this Association be tendered to the members of the profession in Ottawa for the courteous manner in which they have treated the the Association, and its members individually

It was moved by Dr. Sheard, seconded by Dr. Pickup, that the thanks of the Association be tendered to the Railway and Steamboat Companies for travelling privileges accorded to members of the Association.—Carried.

Dr. Fenwick moved, seconded by Dr. Sweetland, that the thanks of the Association be tendered to the Dominion Government for the use of the Railway Committee Rooms for the purpose of holding the present meeting.—Carried.

On motion of Dr. Mullin, Dr. Wright, President-elect, took the chair.

Dr. Sheard, Toronto, in moving a vote of thanks to Dr. Ross, retiring President, said that he was sure that all the members of the Association appreciated the whole-souled manner in which Dr. Ross acted in the position of President of the Association. Much is due to Dr. Ross, for the success, the vitality and the perseverance which was characterized, and which has blessed the Dominion Medical Association, and he hoped that he might be long spared to give us his guiding counsel.

Dr. Church, Ottawa, seconded the motion, which was carried unanimously.

Dr. Ross thanked the Association for the vote of thanks tendered him, and said that as regards the Association he had always felt a very keen interest, and had always endeavored to do his share in supporting its interests. With reference to the coming year, the President's duties, according to our present regulations only begin with his presidence over the annual meeting of the Association. I may, therefore, be of some service to the Association in assisting in making the next annual meeting a success; and as we have come to a decision as regards the place of meeting I hope that members will use every endeavor to be present, and to make the meeting a successful one. Every exertion should be made to attract a large number of our Canadian graduates, who are now scattered

throughout the North-Western States and a number of American physicians to the next annual meeting at Banff.

Dr. Sweetland, Ottawa, was appointed Auditor.

On the motion of Dr. Mullin, Hamilton, the thanks of the Association were tendered to Dr. James Bell, Montreal, for his valuable services as secretary.

The twenty-first annual meeting of the Canadian Medical Association was then brought to a close.

JAMES BELL, M.D.
Secretary.

Progress of Science.

ON THE TREATMENT OF HABITUAL CONSTIPATION IN INFANTS.

(Eustace Smith, M.D., F.R.C.P., in *Brit. Med. Jour.*) – Sluggishness of the bowels in infants is a common source of trouble in the nursery, and the derangement is one which it is not always found easy to overcome. Occasional aperients in such a case give only passing relief. The bowels, indeed, are unloaded for the time, but when the action of the aperient is at an end, they are left no less sluggish than before. Habitual constipation is very common in infants who have been brought up by hand; and on inquiry, the trouble will often be found to date from the time at which bottle feeding was begun. Still, infants at the breast are not exempt from this annoying derangement A deficiency of sugar in the breast milk, or, as is sometimes seen, a milk the curd of which makes a firmer clot than is common in human milk, will often cause habitual torpor of the bowels, which resists treatment with some obstinacy.

It is, no doubt, to improper, or at any rate inappropriate, feeding that the bowel trouble is usually to be referred. An excess of starch in the diet, or any food which overtaxes the child's digestive power, and thus burdens the alimentary canal with a large undigested residue, may set up the costive habit. By such means a mild catarrh of the intestinal mucous membrane is excited and maintained. There is excess of mucus, and the fecal masses, rendered slimy by the secretion, afford no sufficient resistance to the contractions of the muscular coat of the intestine, so that this slips ineffectually over their surface.

Another cause of constipation is dryness of the stools. Even in the youngest infants the evacuations may sometimes be seen to consist of little round hard balls, often the size of sheep droppings, which are passed with difficulty every second or third day. The form of costiveness is generally due to insufficiency of fluid taken. The food is made too thick, or the needs of the system in the matter of water are in some way overlooked. But whether the constipation be due originally to excess of mucus or deficiency of fluid, it cannot continue long without affecting injuriously the peristaltic movement of the bowels. As the colon grows accustomed to be over-loaded, the intestinal contents can no longer exert a sufficiently stimulating influence upon the lining membrane, and the muscular contractions begin to flag. If the infant be poorly fed and badly nourished, this languor of muscular contraction may be aggravated by actual weakness of the muscular walls; and as under these conditions the bowels are apt to be over-distended by accumulation of its fecal contents, the expulsive force at the disposal of the patient is seriously impaired. Constipation, resulting from the above causes, is often made more obstinate by the infant's own efforts to delay relief. A baby whose motions are habitually costive knows well the suffering which undue distension of the sphincter will entail, and often yields to the desire to go to stool only when it is no longer possible for him to resist it. The pain is sometimes aggravated by the formation of little fissures about the anus, and the violent contraction of the sphincter set up by the presence of those fissures forms an additional impediment to free evacuation.

There is another form of constipation in infants, which we should be always vigilant to detect. This is the torpidity of the bowels induced by opium. In well-to-do families the use of soothing syrups and other narcotic preparations is now less common than was at one time the case; but now and then we find a baby drugged, for reasons of her own, by an unscrupulous nurse, and showing the earlier symptoms of narcotic poisoning. So long as the sedative continues to be given the bowels are costive, the child often vomits, his relish for food in great part disappears, and he lies with pupils firmly contracted in a dull, heavy state, from which he cannot easily be roused. In young babies the use of opium seems to lessen the action of the kidneys, the urine is scanty, and on examination of the surface of the body the healthy elasticity of the skin will be found to be seriously impaired. When pinched up between the finger and thumb the skin lies in loose folds on the abdomen, or only slowly recovers its smoothness. If this inelasticity of the skin be noticed in a baby whose pupils are closely contracted, and who seems habitually heavy and drowsy, with little relish for his food, it is well to remember that these symptoms may possibly be due to the action of a narcotic.

An infant whose bowels are habitually costive is not necessarily injured by the want of a daily relief. Often the child seems perfectly well in health, and, except for occasional local discomfort when he gets rid of an unusually large or hardened mass, may appear to suffer no inconve-

nience at all. In other cases there is flatulent distension or frequent colicky pain, the child sleeps badly, has a furred tongue, and cares little for his food; the motions are often light coloured from undigested curd, and are passed with violent straining efforts, during which the bowels may prolapse or the navel start. This straining is a not uncommon cause of hernia.

In remedying this condition, attention to the feeding and clothing of the baby is of little less moment than the use of drugs. When the infant is at the breast, a teaspoonful of syrup given three or four times a day before a meal will often quickly restore the normal regularity of the bowels. If the stools are habitually dry and hard we should see that the child takes a sufficiency of liquid with his food. In addition, it is useful now and then to make him drink some plain filtered water. In the case of a baby in arms, the possibility that the child may be thirsty and not hungry seems rarely to be entertained; but in warm weather, when the skin is acting freely, the suffering amongst young babies from want of water must often be acute. At such times the urine is apt to be scanty and high-coloured, and may deposit a streak of uric acid on the diaper. When fluid is supplied, the secretion both from the bowels and the kidneys quickly becomes more healthy; and a dessert-spoonful of some natural saline aperient water, given at night, aids the return of their natural consistence to the stools.

The form of constipation which is due to mild intestinal catarrh is common enough in young babies. This is owing, no doubt, in great measure to over-abundant feeding with starchy matters, or to the giving of cow's milk without taking due precautions to ensure a fine division of the curd. Still it cannot be denied that we sometimes find the same derangement in infants whose diet is regulated with proper care and judgment. In them the intestinal catarrh is frequently the consequence of exposure, for the sudden withdrawal of all protection from the lower limbs and belly which the process known as "short-coating" too commonly involves, is a fruitful cause of chill. In children so denuded, the feet and even the legs as high as the knees may be quiet clammy to the touch. Under such conditions the susceptibility of the patient to alternations of temperature must be extreme, and the bowels are, no doubt, often kept in a state of continued catarrh from rapidly recurring impressions of cold.

Where the constipation is due to this cause, our first care must be to protect the infant's sensative body so as to put a stop to the series of catarrh. To do this it will not be sufficient to swathe the belly in flannel. The legs and thighs must also be covered, for a lengthened experience of these cases has convinced me that so long as a square inch of surface is left bare the protection of the child is incomplete. We should next see that the infant's dietary is regulated with due regard to his powers of digestion. Excess of starch must be corrected, and it is best to have recourse to one of the malted foods. Mellin's food is especially valuable in cases where there is this tendency to constipation, as in many children the food has a very gentle laxative effect; but as Mellin's food contains no unconverted starch, and can do nothing to prevent the formation of a dense clot when the curd of milk coagulates in the child's stomach, it is advisable, when giving it with milk, to insure a fine division of the curd by the addition of some thickening material, such as barley water. A child of six months old will usually digest well a good dessert-spoonful of Mellin's food, dissolved in milk, diluted with a third part of barley water. A certain variety in the diet is of importance in all cases where the digestive power of the infant is temporarily impaired. Therefore, it is advisable to order an additional food, to be given alternately with the Mellin and milk. Benger's "self digesting food" is useful for this purpose, and rarely disagrees. It must be given, like the Mellin, with cow's milk, but without the barley water, for the pancreatine it contains has a digestive action upon the curd, and removes the tendency of the latter to firm coagulation. In addition to the above, if a child has reached the age of ten months, he may take a meal of veal broth or beef tea once in the day, and with this it is advisable to give some vegetable, such as broccoli or asparagus, thoroughly well boiled. At this age, too, the milk for the morning meal may be thickened with a teaspoonful of fine oatmeal, and sweetened with a teaspoonful of malt extract. In the cases of many infants suffering from habitual constipation, the appetite is very poor, and great difficulty is found in persuading them to take a sufficient quantity of nourishment. This indifference to food is almost invariably associated with coldness of the extremities, and usually disappears when measures are taken to supply necessary warmth to the feet and legs.

In all cases where an infant's bowels are habitually costive, it is of the first importance to enter thoroughly into these questions of clothing and diet. In addition, care should be taken that the bowels are regularly stimulated by manipulations from without. The sluggishness of peristaltic action, which forms a part of every case of habitual constipation, may be very materially quickened by judiciously applied frictions. The nurse should be directed to rub the child's belly every morning after the bath. She should use the palm of the hand and ball of the thumb, and, pressing gently down upon the right side of the abdomen, carry the hand slowly round in a circular direction, following the course of the colon. The frictions may be continued for five minutes. In obstinate cases the child may be laid down upon the bed, and the bowels gently kneaded with the thumbs placed side by side; but in this case, too, the

movements should follow the course of the larger bowel.

In addition to the above treatment, more special measures have often to be employed. These may be divided into two classes: the class of suppositories and injections, and that of remedies given by the mouth.

The class of suppositories and injections aims at producing an immediate evacuation of the bowel, and in no way tends to promote more regular action in the future. These remedies are, therefore, useful in clearing the way for further treatment, but there their value ends. A suppository of Castile Soap introduced into the rectum is a time-honored method of inciting an evacuation in the child. Another old-fashioned plan has lately been revived, which consists in the injection of forty or sixty drops of pure glycerine into the lower bowel. In each case energetic peristaltic action of the alimentary canal is induced, and the bowel is thoroughly emptied of its contents. Of these applications the action of the glycerine is very rapid, and in a few minutes the effect of the injection is seen. The soap suppository acts more slowly.

Injections of soap and water, or other liquid, have an entirely mechanical action in relieving the patient. To be effectual such injections must be large, consisting of at least half a pint of fluid, and should be thrown very slowly into the bowel. Still, although of service when given only occasionally, the frequent use of large injections is not to be recommended; indeed, this method of treatment is distinctly hurtful in cases where the costiveness has become a habit. Even in young babies great dilatation of the bowel and serious weakening of its muscular coat have often followed the daily use of the enema pump.

For the permanent cure of habitual constipation remedies given by the mouth are greatly to be preferred, but, at the same time, strongly acting purgatives are worse than useless. Our aim should be to find the smallest dose which will awaken a normal degree of energy of peristaltic action, and to give this dose regularly so as to induce a habit of daily evacuation. The daily dose is most efficacious when combined with a remedy which tends to give tone to the muscular coat of the bowel. For this purpose a useful draught is composed of half a drop of tincture of nux vomica, combined with ten drops of tincture of belladonna and twenty of infusion of senna, make up to a fluid drachm with infusion of columba. This draught should be given at first three times a day before food, but soon two doses in the day will be sufficient, and it is rarely long before one dose given at bed time has a sufficiently laxative effect. Our object is not to excite watery evacuations, but to induce as faithful an imitation as possible of a normal action of the bowels. The liquid extract of cascara is useful in many cases, especially if combined with tincture of belladonna. Twenty, thirty, or more drops of cascara extract, with ten of the belladonna tincture, may be given with a few drops of glycerine in a little water every night. In the west of England a remedy held in high esteem consists of half a grain of sulphur, colored red with cochineal. That this apparently insignificant dose is often efficacious, when given regularly every night, I can testify from my own experience.

In cases where the motions are dryer than natural, as if from imperfect secretion of the intestinal glands, the addition of liquid to the diet, already recommended, may be supplemented by the administration of some saline aperient two or three times a day. This treatment is made more effectual when the saline is combined with small doses of nux vomica and quinine. For a baby of six months old five to ten grains of sulphate of soda may be given with one quarter of a grain of quinine, half a drop of tincture of nux vomica, and a minim of aromatic sulphuric acid, in a teaspoonful of water, three times a day before food. As in all cases where the remedy prescribed has been chosen with judgment and given in appropriate quantity, the continued administration of this draught, so far from rendering the bowel dependent upon the medicine, stimulates it to act spontaneously, so that the dose has soon to be given less frequently, and in no long time can be discontinued altogether.

By means such as the above, the most obstinate case of constipation in the infant can be cured with little difficulty, but to be successful the treatment must not be restricted to mere drug-giving. The food of the child must be regulated with care, his clothing must be inquired into, and his general management passed under review. Where this is done, drugs given in comparatively small doses will act with sufficient energy, and will soon restore their normal regularity to the bowels.

DYSMENORRHEA.—Bartholow:

℞.—Ex. stramonii..... —
Ex. hyoscyami..... —
Ex. opii..... aa gr vj
M.—Et f. pilulas No. vj.
S.—A pill every three, four or six hours.

FOR HEADACHE.

Dujardin-Beaumetz recommends the following:

R.—Caffeine..... gr. iv
Salicylate of sodium..... gr. iv
Hydrochlorate of cocaine..... gr. iss
Water..... f ʒ ij
Syrup..... f ʒ vss
M.—Take the whole at one dose at the beginning of the attack.

NOTES ON ANTIPYRIN.

It is not my intention to make any remarks on the uses of antipyrin as a febrifuge. Antipyrin has been long used for this purpose, long enough indeed for a host of rivals to have arisen, one of which—I mean antipyrin (acetanilide)—bids fair to displace it. I wish rather to bring before the meeting some account of the various diseases for which antipyrin has been used, in which it has a more or less specific action, apart from its property of lowering temperature. Antipyrin has been so largely used, during the last year, more especially upon the Continent, that it runs the danger of degenerating into a universal panacea for all ills. So great in fact has been the demand for the drug, that it is believed that the supply has with difficulty kept pace with it, and complaints are now made that the drug is suffering from over-popularity, and that its purity is being sacrificed by the makers to insure a sufficient quantity in the market.

Antipyrin has been very largely used as an anodyne, and a claim has been made for it by Professors Germain Sée and Lépine that it is a reliable substitute for morphine, while in cases where morphine is contraindicated, such as advanced kidney disease, acute gout, or certain forms of cerebral irritation, antipyrin may be given freely to allay pain. It has the great advantage over morphine that it does not cause cerebral symptoms; thus there is not any vertigo nor vomiting, and according to Professor Sée the use of the drug is not followed by sleep or nerve stimulation. Professor Lépine, however, considers that antipyrin acts both as an anodyne and a nerve stimulant, so that though it relieves pain, it at the same time quickens the intellectual faculties of the patient, and renders him disinclined for sleep.

Taking his view of the action of antipyrin as an anodyne, we may say that it is diametrically opposed to morphine in that it acts as an anodyne without depressing the higher brain centres. In only two cases in which I have given antipyrin has it caused sleep, and in these instances I believe the sleep was rather the result of relief from pain than that of any somnolent action of the drug. The fact that antipyrin acts as a nerve stimulant as well as an anodyne is a decided objection to its employment when we wish to relieve pain and at the same time insure sleep. The best method in such is to follow the antipyrin by a hypnotic, such as chloral.

For the immediate relief of pain the drug should be used hypodermically, and, as it is very soluble in water, a fresh solution may be made by dissolving one of the tablets prepared by Burroughs & Wellcome in an equal weight of water.

The dose for an adult, of antipyrin used hypodermically to relieve pain is five grains. This has been calculated by Dr. Fränkel, of Berlin, to be equivalent to one-thirtieth of a grain of morphine. The dose may be repeated if the pain is not relieved. Beyond the pain caused by the injection, and a certain feeling of tension which lasts a few seconds, no bad effects have been noticed. The drug usually gives relief in from fifteen seconds to half aminute, and the effect lasts for some hours (six to eight hours—Fränkel).

As an anodyne, antipyrin has been used chiefly in herpes zoster, lumbago, ataxia, hepatic and nephritic colic, acute asthma, acute rheumatism, and acute gout.

If given in sufficiently large doses it appears to give relief in the majority of cases. Dr. Frankel gave it in all cases in which morphine appeared to be indicated, and did not meet with a single failure. Dr. Jennings, of Paris, however, side by side with many cases successfully treated by antipyrin, mentions a case of acute gout which was influenced by the drug.

If given by the mouth as an anodyne, antipyrin must be used in large doses; thus Professor Sée recommends a dram to a dram and a half in the twenty-four hours, and Professor Lepine one hundred and fifty grains divided in two doses.

In rheumatism and gout the drug appears to be both sedative and curative in its action; it not only allays the pain, but in many cases shortens the attack. Profesor Sée gave it in fifteen cases of hydrarthrosis, which had resisted treatment with the salicylates and also counter-irritation by the actual cautery. In all these cases he found that swelling and pain disappeared in a few days. Dr. Fränkel gave it in thirty-four cases, with the result that in all but two there was amelioration of the symptoms and shortening of the attack. In fifteen cases, however, a relapse occurred. He found that the average duration of acute rheumatism with antipyrin was twenty-five days, while with the salicylate treatment it was 35.2 days. Mr. Raymond Johnson tried antipyrin in four cases of acute rheumatism, with the result that it lowered the temperature in all, but in only one out of the four did it relieve the symptoms. The three cases which were unrelieved by antipyrin yielded to treatment with salicylates, while in the fourth, where salicylate of soda had failed to relieve the patient, antipyrin did so.

To give relief in acute rheumatism or acute gout, large doses of antipyrin must be given, one to two drams during the twenty-four hours being a usual dose. As a rule the drug produces free sweating and rapid defervescence. In chronic rheumatism it acts in allaying the pain and shortening the course of the disease. I have given it in a large number of cases of rheumatism, and in the majority I have found it successful. It appears to me to be a remedy which at least should be tried when the salicylates fail or produce disagreeable after-effects, as they occasionally do. Most of the cases recorded in which antipyrin and the salicylate treatment have been used side by side, for the purpose of comparison, yield either to the one or the other, the refractory

cases in either section usually yielding to the administration of the other drug. I have not any statistics to prove whether antipyrin is of use in preventing the secondary troubles in acute rheumatism, such as endocarditis.

Antipyrin has been used with great success in nervous disorders, and I believe it supplies us with a specific for many neuralgic and other allied complaints. Its success in the treatment of migraine and cephalalgia is now assured, and one rarely takes up a periodical without finding in it the description of various cases which, after being more or less intractable to remedies for years, have yielded to antipyrin.

In Germany and France especially has this drug been used in the treatment of migraine, and to a less extent in England. During the last few months I have used it in the out-patient department and in private practice in such cases with very good results. As a rule patients return after having taken the remedy, and ask pointedly for some more of the same medicine that they had last time, a fact which stamps its value at once on one's mind.

In treating migraine with this drug, I believe the best plan is to use the remedy as a specific against the attacks, and not to administer it continuously. If the migraine be periodic, or if there be a preliminary aura, the drug should be exhibited as soon as possible before the threatened attack. Thus, if an attack be feared for the morning, antipyrin should be given at night, and if the attack still threatens in the morning, a further dose should be administered. In this way the attack generally is aborted. Even if preliminary warning be absent, the medicine taken as soon as the attack comes on either aborts it or renders its symptoms less intense. In my experience it is very rare for antipyrin to fail to influence favorably an attack of migraine, and in this I am supported by almost all of those who have noted on this drug.

It is rarely necessary to give large doses to produce the specific effect. I generally give five to seven grains combined with alkalies and a bitter infusion, to be taken when an attack threatens, and to be repeated, if necessary, in an hour. I find that somewhat larger doses are recommended (fifteen to twenty grains), but patients rarely complain that the smaller dose fails.

I have found the drug useful also in those cases of bilious headache, which often occur in patients of full habit, who are addicted to the too frequent use of alcohol. These cases, which generally occur among women in a comfortable position in life, yield to the administration of antipyrin; I had the satisfaction of hearing a patient, who has suffered in this way for more than ten years, state that at last a remedy had been found which relieved her. Of course the remedy does not touch the root of the evil.

In some cases of cephalalgia, antipyrin relieves for a time, but at length the patient becomes habituated to the drug, and the relief is less marked. In such cases, either the drug may be increased or antifebrin or some other of the substitutes for antipyrin may be used.

As antipyrin has so marked an influence over these nervous complaints, it seems natural to suppose that it may be useful in epilepsy.

Fraty concludes that it has a distinct influence over epilepsy akin to that manifested by the alkaline bromides, but he confessses that large doses must be given (one to two drams daily), and that in a considerable number of cases it has to be given up, owing to the *malaise* it produces.

I have not tried the drug in many cases of epilepsy, but I was not favorably impressed with the result when I did try it. As a sedative antipyrin has been tried in cases of nocturnal emissions, and it has been found that seven to fifteen grains, administered on going to bed, prevents the emission in many cases. It also acts in diminishing the excessive flow of urine, which not infrequently accompanies spermatorrhea, and which arises from the hyperesthesia of the nervous system. I would venture to think that this drug may be well worth a trial in those cases which so often are found to exist in young men, who have fallen into the habit of masturbation at school, and who, on coming into the world, learn the evils of it, and relinquish the habit, but in whom spermatorrhea frequently supervenes to a serious extent. I have given it in similar cases with good results, the best plan being to give ten grains of antipyrin in combination with ten grains of chloral hydrate at bed-time, the patient usually falling asleep shortly after getting into bed, and remaining asleep without disturbance till the morning.

Antipyrin was given by M. Bloch to a neurotic man with a tender spine, who was periodically overcome by attacks of drowsiness, which come on after each meal; these were accompanied by pains in the head and debility. His condition had been improved by the use of nux vomica to some extent; but, on the exhibition of antipyrin in fifteen-grain doses, given on waking and at 11 a. m., the drowsiness after a few days disappeared, and the remaining nervous symptoms abated. In this case it acted as a decided nerve stimulant.

The drug has been strongly recommended in cases of chorea by Legroux, who considers it a most rapid, certain, and inoffensive remedy. He administered it in six cases, giving forty to fifty grains daily. All his cases recovered rapidly in from six to twenty-seven days. I have not had the opportunity to use it frequently in chorea, but in such cases as I have used it the movements diminished rapidly. In one child to whom I gave the drug it had to be discontinued, owing to the cardiac depression which accompanied its use.

Antipyrin has been used with success in spasmodic nervous disorders, such as hay-fever and whooping-cough. Dr. Bloch tried it in a case of hay-fever, in which cocaine and the bromides had been given without result. He gave it in thirty-grain doses at the hours when the attacks usually came on, and found that the drug aborted the attacks. After taking antipyrin for some weeks the disease disappeared in this case.

Sonnenberger, from an experience of seventy cases in which he used the drug in whooping-cough, concludes that it is a very useful remedy in such cases. He gave it to infants in doses of one half to one and one half grains three times a day in syrup of tolu or raspberry, increasing the dose to ten or fifteen grains for older children. The remedy must be used systematically, to produce a good result in whooping-cough.

In nervous vomiting, especially in the vomiting of pregnancy, antipyrin is useful. If the vomiting be periodic, the drug should be given a few hours before the usual appearance of the attack. In sea-sickness the drug has been lauded as a specific, perhaps only to have its day as most other specifics for this disorder have had. More than one medical man has, however, recorded the debt of gratitude he owes to this remedy in crossing the Atlantic.

Antipyrin has been used as a hemostatic in cases of pulmonary hemorrhage by Dr. Olikoff. He made a solution of fifteen grains to the ounce in water, and made his patients breath through this for four or five respirations, repeating the use of it every half hour. In all the six cases tried, the hemorrhage was diminished. As a hemostatic for general purposes, antipyrin is too costly a remedy to be employed lavishly, though it has been recommended for epistaxis and other forms of hemorrhage. Herpes zoster and locomotor ataxy have both been successfully treated with antipyrin. In locomotor ataxy it appears to act in alleviating the lightning pains and in giving ease to the patient rather than by altering the course of the malady.

Since antipyrin became a popular remedy, many cases in which the drug has produced disagreeable effects have been recorded, though, as far as I am aware, none of these cases has ended fatally, nor have there been any symptoms which have lasted more than a few hours. The cases which I have collected (more than twelve in number) appear to me to be pure examples of idiosyncrasy. They are usually isolated cases, occurring amid many others in which the same quantity of the drug was administered. They do not appear to depend on the quantity of the drug given, for in one case four grains, in another eight grains, and in a third fifteen grains of antipyrin produced symptoms of poisoning, though more than double the dose has been given in many hundreds of cases without bad effects. There is, as far as I can find, no special class of cases in which the administration of antipyrin is likely to bring on symptoms of poisoning; but, as it appears in certain individuals to cause disagreeable symptoms, regardless of dose, we are likely to hear further of this property it possesses from some of the large number of people who are now taking the drug as a preventive against sea-sickness.

The chief symptoms which manifest themselves in cases of poisoning by antipyrin are certain nervous sensations, such as restlessness, loss of memory, a feeling of general expansion of the body, and a sensation of great coldness. These are followed by swelling of the face and the appearance of an erythematous eruption resembling measles—so much like it, in fact, that those who have seen cases of antipyrin rash are careful to warn us to avoid the diagnosis of measles in patients taking antipyrin.

The chief points of difference between this rash and measles are that it appears but slightly on the face, that its chief distribution is on the extremities, that it is non-crescentic in distribution. In many cases it is not accompanied by catarrh of the eyes and nose, but in a few cases catarrh does occur, and when present it must make the differential diagnosis very difficult. Besides these symptoms, antipyrin may cause diaphoresis, feebleness of the pulse, and general collapse. Gastro enteritis occurs rarely.

The antidote which removes these disagreeable effects most readily is belladonna, given either as the tincture or in the form of atropine used hypodermically (one-seventieth of a grain).

THE SPECIFIC TREATMENT OF TYPHOID FEVER. (1)

BY WILLIAM F. WAUGH, A.M., M.D.

When Klebs told us of the bacillus typhosis in 1881, he recommended as a suitable remedy the benzoate of sodium or of magnesium.

His reason for preferring these salts over carbolic and salicylic acids, and other germicidal remedies, was that none of the latter could be given in really efficient doses, continuously, for a sufficiently lengthy period, to accomplish the object, without causing undesirable and injurious effects in the patient. He recommended that the benzoates be used by inhalation, by gargling, and given internally in doses of 320 grains per day.(2)

Since the publication of Klebs' discoveries in 1881, I have made use of the remedies he suggested in all my cases of typhoid fever up to last fall, with very fair results. The cases usually ran a mild course: were free, as a rule, from alarming accidents, and the death-rate was low. But on looking back over this period, and taking into

(1) Read before the Pennsylvania State Medical Society, June 7, 1888.

(2) *Phila. Med. Times*, Dec. 3, 1881, p. 152.

account the results of increased care in nursing, feeding and watching my cases, together with the disuse of irritants like quinine and the mineral acids, I am unable to say that there was any improvement distinctly due to the use of the benzoates. As a speaker once said, concerning the bacillus tuberculosis: "We do not need him; we can explain all the phenomena of the disease without him."

During the summer of 1887, I began the use of the sulpho-carbolate of zinc in summer complaint, The results of this treatment have been already published. Suffice it to say here that the success which ensued was, in my opinion, clearly due to the addition of this drug to the treatment.

There can hardly be a doubt that we have in summer complaint (using the word to cover all the varieties of summer diarrhœa) the action of a specific microbe which has made the gastro-intestinal canal the seat of its operations; and that the hot head, the fever and the symptoms of the so-called hydrencephaloid are due to the absorption and circulation in the blood of the poisons generated by these organisms in the intestinal canal.

That the cause of death is not exhaustion from diarrhœa in all cases is potent to every observer who has seen patients die, when the discharges had been stopped while the fever and cerebral symptoms increased.

Several notable phenomena followed the administration of sulpho-carbolate of zinc in this disease:

1st. The irritability of the stomach was relieved from the time the first dose was given.

2nd. The stools at once changed in their condition, losing the fetid odor which previously characterized them.

3d. The heat of the forehead disappeared, as did that of the epigastrium; the cerebral symptoms improved at once, and in case the fever was high, it fell to near the normal point.

That these results were due to the local germicidal action of the drug is shown by the fact that, when the discharges partook of the dysenteric character, the administration of the drug by the mouth proved insufficient; but a speedy cure resulted when the zinc salt was given by enema.

It was found that infants in their second summer bore two-grain doses of this drug very readily, showing it to be far less irritant than the ordinary salts of zinc.

These results, it will be seen, are quite consistent with the theory that the general symptoms of summer complaint are due to an intoxication of the blood with the products of the disease-germs; not an invasion by the germs themselves, as, in that case, the local action of a germicide in the intestinal canal could not account for the beneficial results.

This experience in summer complaint led me to give the same agent a trial in typhoid fever. Here we have a somewhat similar condition: a specific micro-organism inhabiting the intestinal canal and producing general symptoms. If the sulpho-carbolate prove as efficient a germicide as in the other disease, it will enable us to separate the symptoms due to the poisons generated by the disease-germs in the intestinal canal from those produced by those germs which have penetrated beyond the reach of germicides.

I find on looking over my notes, that I have treated twelve cases with the zinc salt.

Three of these were diagnosed as incipient typhoid, including one in which Dr. Goodman called me in consultation, and in which we agreed as to the diagnosis. In these three cases the symptoms disappeared when the sulpho-carbolate was given; so that the diagnosis must be considered doubtful.

The others were well marked. In one case I was called in the second week. Repeated hemorrhages from the bowels had reduced the patient's strength greatly; her pulse was very rapid and feeble; the temperature rose to 105° ; and her stomach could retain nothing. During the afternoon following my first visit she had another hemorrhage; but, with this exception, her improvement was uninterrupted and remarkable for so severe a case. The gastric irritability disappeared with the first dose; the hemorrhage ceased, the stools became odorless, the diarrhœa stopped, the tympanites subsided, and the temperature never thereafter rose above 102.5°.

In another case, which I attended for my friend Dr. Woodbury, and in which, I am informed, Dr. Cleeman coincided as to the diagnosis, the temperature never rose above 103° and the diarrhœa ceased when the zinc was given. There were scarcely any cerebral symptoms, and the disease ran an unusually speedy course.

In one case the treatment failed to save the patient. This was a hospital case which had run on into the third week, with profuse diarrhœa, repeated intestinal hemorrhages, profound prostration, and the gravest cerebral symptoms. It was with difficulty his attention could be roused, and for some time he had recognized no one. It had been found necessary to give him stimulants hourly.

This was his condition when I went on duty. All that a local germicide could do was accomplished by the sulpho-carbolate of zinc; the temperature fell 2° ; the hemorrhages were stopped as well as the diarrhœa; and the frightful fetor of the stools disappeared. The man lingered for four days—thanks to the excellent regimen instituted by my predecessor—and then died, comatose. In this case there was evidently an invasion of the blood by the typhoid bacilli. This was the only death; and, under the circumstances narrated, I do not consider that it should be counted in estimating the value of the treatment.

Not to weary you with the repetition of case-histories, I will sum up the effects of the sulpho-

carbolate of zinc by saying that in every case its use was followed by :—

1. Relief from gastric distress.
2. Disappearance of fetor from the stools.
3. Moderation or stoppage of diarrhœa.
4. Ceasing of hemorrhage.
5. Ceasing of tympanites.

Reduction of temperature by two to three degrees, with a corresponding improvement in the cerebral symptoms, except in the case detailed above.

There are some cases occurring in this city of doubtful pathogeny, which are sometimes classed as typhoid, sometimes as typho-malarial. They are characterized by fever, which ranges from 102.5° in the morning to 104.5° in the evening, dry tongue, brown in the centre, but coated to the tip and edges; tenderness in the epigastrium, but not in the iliac fossæ; great debility, anorexia and gastric irritability, but no diarrhœa unless a laxative is given, in which case profuse catharsis ensues, with an aggravation of all the symptoms. I have never found the typhoid spots in these cases. Quinine could not be borne by the stomach, but gave great relief when given by suppository in scruple doses.

In these cases the sulpho-carbolate of zinc, in doses of three to five grains every two hours, effects a cure so rapidly that I am constrained to believe that the disease in question is due to a microbic invasion of the stomach.

Permit me, in conclusion, to advert briefly to the diet of typhoid fever. About a year ago a French clinician, Du jardin Beaumetz, referring to the use of milk in typhoid fever, stated that this food could only nourish through its water and salts, as neither the casein nor the fat can be absorbed; and hence these substances are injurious. It struck me as significant that, although this statement was made in the Academy of Medicine, where so many keen-witted men are continually on the look-out for opportunities to distinguish themselves, and where, as in the case of Professor Peter, one man rather enjoys the prospect of being arrayed against the whole body of his fellows, not one was raised in defence of milk.

And yet there is a source of fallacy in the case against it, on which an argument might be hung: in that the typhoid process may not effect all the lacteals—at least not all at the same period, and hence some absorption may take place.

Be this as it may, the researches of Vaughan on tyrotoxicon may well raise a doubt as to the propriety of introducing a highly organized and readily decomposed body like milk into such a sink of impurity as the gastro-intestinal system of a typhoid patient.

In all the cases in the series reported, predigested foods were substituted; and I cannot but attribute much of the freedom from tympany, diarrhœa, etc., to this cause Very little stimulant was needed; in fact, not more than was to be found in one of the beef preparations in the market, which was given in the weaker stages.

In conclusion, I will say that while my eight undoubted cases are too few to afford more than an indication of the truth, the uniformity of the results obtained leads me to believe that in the sulpho-carbolate of zinc we have probably a remedy for typhoid more nearly specific than any heretofore proposed—in that its use is a legitimate deduction from the pathology of the disease.

The food preparations most used in this series of cases were Carnrick's soluble food, with liquid peptonoids or Rudisch's sarco-peptones; and, when slight stimulation was indicated, Bovine was added to the proceeding. In addition to these, the white of egg was given in the raw state, mixed with cold water and a little pepsin added. In one case Wells and Richardson's lactated food was used.—*Phila. Times.*

LACTIC ACID AND DIET IN INFANTILE DIARRHŒA.

By Frank Whitfield Shaw, M.D., Physician to the Brooklyn City Dispensary.

Less than two years ago, Hayem, of Paris, presented to the Academy of Medicine in that city a report on the use of lactic acid in the green diarrhœa of children. In the preparation of this work he had been assisted by his interne, Lesage, whose particular share in it had been the development of some pure gelatin cultivations of a germ which Hayem had discovered as being present in the vomited and rectal discharges of this variety of diarrhœa. He said he had established beyond the possibility of a doubt, by clinical experiment, the direct relation of this germ to the green color, and as such he claimed for it the right of discovery.

However, soon after his report was published, this claim was contested by Damaschino, who said that, three years before he had discovered this same microbe, had shown its relation to green diarrhœa, and had presented to the Biological Society some micro-photographs of it.

Hayem admitted his priority to the microscopical discovery, but still claimed as his own the credit for showing the proper relation of the bacillus to the particular from of diarrhœa. He stated that Damaschino had gone no further than merely to recognize the germ, and then cited the experiments which Lesage had made of introducing into the intestinal tract of healthy animals some pure cultivations, and producing by them a characteristic green diarrhœa. He also showed that the discharges were contagious.

The microbes, which are rod-shaped and can exist only in an alkaline medium, show a disposition to bunch themselves into groups, and their number is in direct relation to the severity of the attack.

These are, therefore, the first successful attempts to establish the parasitic origin of at least one

form of diarrhœa, as probably also they are the first efforts to treat the disorder according to germicidal method. Since then, in this country, that attention has not been given to the experiments which the conclusions would seem to warrant.

It was my privilege, soon after the report of Hayem was published, to have an opportunity of testing clinically in dispensary work the statements made by him. After using the acid in the green form of diarrhœa for a short time, the suggestion presented itself of trying the effect of it in all the varieties of diarrhœa without reference to the color of the stools. The idea of the universal application of germicides to diarrhœa was strengthened by the paper, a few months later, of Dr. Wm. Booker, read before the International Medical Congress at Washington, on the different forms of bacteria found in the discharges of summer diarrhœa. He stated that twelve varieties had been isolated, eleven being bacilli and one belonging to the variety cocci. He gave their action on milk as follows: "Some coagulated milk with acid reaction and evolution of gas; one caused coagulation with alkaline reaction; one gave the milk a peptonized appearance; and other varieties caused no perceptible change."

On account of its simplicity as well as its elegance, the employment of this universal acid treatment was a very easy one, and the results were such as to leave no doubt as to its usefulness. The trial began during the summer of 1887 and has been continued during the present summer, over one hundred patients receiving the treatment.

The age of the patients varied from ten weeks to twenty four months, and there was great variety in the severity. The stools, which ranged from three to twenty daily, presented all the varieties found in the different forms of diarrhœa. They were the watery-mucous, the yellow with coagulated casein, the slightly greenish with mucus, casein, and sometimes blood, and the distinctly green. In very few cases of the green diarrhœa so treated was there failure to afford some relief, and many of the recoveries were certainly remarkable. But, while the trial confirmed the conclusions of Hayem as to green diarrhœa, it also established the usefulness of the acid in the other varieties.

The significant features in support of lactic acid are these: It not only relieves the diarrhœa, but it also acts beneficially for the vomiting, fever, and restlessness. It changes also the very offensive odor of the stools.

The vomiting is controlled within a few hours so completely that the child can begin to take nourishment, and, although it may subsequently occur at intervals, a continuance of the treatment soon stops it. Again, the fever which attends every case of any severity is reduced by it. To not a single child in the one hundred cases was any antipyretic given, the fever usually subsiding before the diarrhœa had fully stopped. Attending the reduction of temperature there was shown a disposition to sleep, and the intestinal pain, which was often severe, received no other medication than the acid. To none of them was opium given in any form.

Within a period varying from twelve to seventy-two hours, the discharges would begin to change, the greenish becoming less watery and assuming a yellow color, while the watery-yellow and sometimes bloody had a greater consistence without the unpleasant odor.

The general results have been so satisfactory that all astringent and alkaline remedies have been abandoned, lactic acid alone now being given, no matter what variety of diarrhœa presents itself.

But as the children so treated came largely from the tenement houses, where crowding, heat, poor ventilation, and improper food are important factors, it was found advisable to adopt some form of dietetic measure in connection with the acid. In a monograph on the treatment of the diseases of children, read by Dr. Jacobi in 1879, a valuable suggestion is given concerning the feeding of children. The frequency of diarrhœa in children fed wholly on breast milk had already presented itself, and for a considerable time it had seemed contrary to reason to so continue feeding, although good authorities advised, whenever possible, to insist upon a diet wholly of breast milk. This was done, and the results were no better, while in children somewhat older who had begun to take other foods, there was usually a benefit when these were alternated with mother's milk. An exclusive diet, either of breast milk or prepared food, did not seem to give good results, and the question was not satisfactorily answered until the method employed by Dr. Jacobi was tried. In his monograph he states that even normal mother's milk contains fat that is not digested, and that when diarrhœa occurs, if lumps are found in the passages, they are not wholly undigested casein, but, on the contrary, are mostly fat, and probably remnants of intestinal epithelium. These fats are olein, margarin, and stearin. Fatty acid in abundance is a common cause of derangement of digestion and assimilation, and it impedes the normal secretion of other digestive fluids.

He then quotes the conclusions of Wegscheider concerning the fat in breast milk: "Fat can not be completely absorbed: one part leaves the intestines in a saponified condition; a second part as free fatty acid; a third as fat in an unchanged condition." From this he concludes that one precaution to observe is to guard against food too rich in fat. As the mother's milk is best when it can be tolerated, he endeavors to make this possible by diluting it with some liquid farinaceous food. To do this, he suggests preceding the nursing by one or two teaspoonfuls of barley-water. Instead, however, of the barley-water, some of the prepared foods were tried according to this principle, and the results were beneficial, due, probably, to the small

percentage of fat which they have been shown to contain. There was less troublesome casein to act as an intestinal irritant, and, when they were taken in connection with the lactic acid, recovery was usually speedy. This dietic precaution has been adopted, and is recommended, whenever practical, in either variety of exclusive diet.

The size and frequency of the dose of lactic acid varies entirely with the age of the patient and with the number of discharges. A two-per-cent. solution is usually ordered. The following is the formula advised by Dr. Hayem:

R Pure lactic acid..... ℥ ss.;
Syrup..... ℥ j;
Water..... ℥ iij. M.

Each drachm of the solution contains about one drop of pure lactic acid.

For a child under twelve months, half a teaspoonful every hour is sufficient. If the discharges are very frequent, a teaspoonful may be given every hour for six doses, changing them to half a teaspoonful. For over twelve months a teaspoonful every hour is the ordinary dose. Dr. Hayem recommends its use one day after the diarrhœa has stopped. The large dose at first suggested in the report do not appear to be necessary, and there is danger, if it is given in larger quantities, of causing irritation of the buccal mucous membrane. It is best to dilute even these small doses, as otherwise there is a decided acid taste, not unpleasant, however.

Other germicides have been suggested and tried, such as salicylate of sodium and naphthaline; but lactic acid, while possessing all the curative properties of the others, has additional advantages:

1. It is more palatable than salicylate of sodium or naphthaline, more readily tolerated, and simpler to administer.

2. It controls vomiting, and permits the earlier use of food.

3. Under it, temperature is reduced and intestinal pain quieted.

4. Restlessness is overcome, and sleep rendered possible without the use of opiates.

327 Greene Avenue, Brooklyn.
N. Y. Med. Journal.

THE USE OF ANTIPYRIN DURING LABOR.

Although it is written, "In sorrow thou shalt bring forth children," it is the laudable aim of the obstetrician of to-day to mitigate, in so far as he is able, the pangs of childbirth. The means to this end, to which we may resort without damage to either the mother or the child, are few in number, and the most valuable of all justly finds its chief rank after the completion of the first stage of labor..... The excellent results yielded me by antipyrine in dysmenorrhœa and others affections, where it is a question of nerve pain, have led me during the past year to test it during the first stage of labor, and my results have been sufficiently gratifying to justify me in asking other obstetricians to try the drug. Possibly it has been similarly used by others, but if such be the case I have seen no record of experience. My habit in regard to the administration of the drug is to give fifteen grains well diluted, and preferably with some stimulant, such as the aromatic spirits of ammonia, and to repeat the dose in one hour thereafter. In two hours after the second dose the patient receives ten grains, and so on every two hours if needed. The chloral mixture I administer, as has always been my custom, in fifteen-grain doses every three-quarters of an hour till three or four doses have been received. The result of this combination has been to nullify the pains so much as to be in two instances scarcely perceptible, and in others simply uncomfortable. The progress of labor has not been at all interfered with, and neither the mother nor the child have presented evidence of injury from the administration of the antipyrine.

I report this experience thus briefly, in order that others observers may test the validity of my results. Should there be concurrence of opinion, the first stage of labor will be rendered practically painless by antipyrine, even as the second and the third may at any time be made through resort to chloroform.—*Dr. Egbert H. Grndin, in New York Medical Journal.*

Dysmenorrhea.—Calvin:

℞.—Tr. gelsemii..... .....—
Tr. camphræ..... ..... —
Tr. opii camphoratæ ....aa ℥ ij
M. S.—Thirty drops every two hours p. r. n.

TREATMENT OF CARBUNCLE.

I have tried the expectant treatment of carbuncle recommended by Paget; but find it so long, tedious, and painful to my patients that I have completely discarded it. The treatment by excision and scraping is too severe to be generally adopted in private practice, although it has been apparently very successful.

I have adopted the following for the last three years, to which I have added the hypodermic injection of cocaine. I inject into the carbuncle hypodermically half a grain of hydrochlorate of cocaine, and wait about five minutes until the skin is quite anesthetic; then I make a small incision into the centre of the carbuncle with a tenotomy knife, and insert a small sharp piece of potassa fusa, and then push it home. Afterward a piece of belladonna plaster is cut circular, a little larger than the carbuncle, and placed over it. The plaster serves the double purpose of retaining the caustic and of alleviating the pain. This is kept on for eight hours, and then it is taken off, and hot linseed poultices are applied for the same length of time. The result is that the patient always recovers about three days after the commencement of the treatment, which in this way is carried out almost painlessly.—*Robert Main, M. D., British Med. Journal.*

VOMITING IN PREGNANCY A SIGN OF THE SEX OF THE CHILD.

WINFIELD, ARK.

ED. REVIEW.—It would be a source of pleasure to most prospective fathers and mothers to be able to tell, or even to know with approximate certainty, what sex their child will be. At one time the number of fœtal heart-sounds to the minute was thought to be an index, but this sign has been proven to be rather unreliable.

Some years ago, my attention was called to morning sickness as a sign of the sex of the fœtus, and as substantiating this I will cite the following:

A woman, carrying her first child, was so ill from "morning sickness" during the first four months of pregnancy, as to be entirely unfit for household duty. The child when born was found to be a female. The second pregnancy was similar to the first, a female child being born.

During her third pregnancy my patient was not sick in the least, and would not believe that she had conceived till she felt the movements of the child. This one proved to be a boy. During the next two pregnancies no sickness occurred, and male children were born. During her sixth pregnancy she was greatly annoyed by morning sickness, and a girl was born. I foretold the sex of the seventh, a boy, by the absence of vomiting, and the eighth, a girl, by the presence of vomiting.

In searching the literature at my command, I find Cazeaux and Tarnier, in the last edition of their great work on obstetrics, say it is a sign of some importance, and Priestley in "Reynold's System of Medicine" refers to a physician, who claimed to be able to foretell the sex of the child by the absence or presence of vomiting during pregnancy.

I would be glad to hear from other readers of the REVIEW upon this subject.

CHEVES BEVILL.

The doctor who selfishly and unwisely sits in his office, or "knocks around town," lazily, and never attends at home or abroad the convocations of his brethren, thus putting himself in a position for receiving and imparting information, exchanging views and experiences, rubbing off rough corners, and brushing out the mental cobwebs from the darker areas of his mind, made dark by the absence of the light reflected from other's works against the best interests of himself and his patients, in that he is likely to be come rusty and slow as thinker, a laggard, a sluggard, a narrow, one-idead, dogmatic, snarling, misanthropic, dyspeptic crank.

Go where you will in any community, and you will find the men who are the busiest, the most thoughtful, the best students, the happiest, the leaders in the front rank, are the ones who are never too busy to attend their home societies regularly, and get away to a distant meeting at least once or twice a year.

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THE CODE OF ETHICS OF THE AMERICAN MEDICAL ASSOCIATION

ART. V.—*Duties of physicians in cases of interference.*

1. Medicine is a liberal profession, and those admitted into its ranks should found their expectations of practice upon the extent of their qualifications, not on intrigue or artifice.

2. A physician, in his intercourse with a patient under the care of another practitioner, should observe the strictest caution and reserve. No meddling inquiries should be made—no disingenuous hints given relative to the nature and treatment of his disorder; nor any course of conduct pursued that may directly or indirectly tend to diminish the trust reposed in the physician employed.

3. The same circumspection and reserve should be observed when, from motives of business or friendship, a physician is prompted to visit an individual who is under the direction of another practitioner. Indeed, such visits should be avoided, except under peculiar circumstances; and when they are made, no particular inquiries should be instituted relative to the nature of the disease, or the remedies employed, but the topics of conversation should be as foreign to the case as circumstances will admit.

4. A physician ought not to take charge of or prescribe for a patient who has recently been under the care of another member of the faculty in the same illness, except in cases of sudden emergency, or in consultation with the physician previously in attendance, or when the latter has relinquished

the case, or been regularly notified that his services are no longer desired. Under such circumstances no unjust and illiberal insinuations should be thrown out in relation to the conduct or practice previously pursued, which should be justified as far as candor and regard for truth and probity will permit; for it often happens that patients become dissatisfied when they do not experience immediate relief, and, as many diseases are naturally protracted, the want of success in the first stage of treatment affords no evidence of a lack of professional knowledge and skill.

5. When a physician is called to an urgent case, because the family attendant is not at hand, he ought, unless his assistance in consultation be desired, to resign the care of the patient to the latter immediately on his arrival.

6. It often happens in cases of sudden illness, or of recent accidents and injuries, owing to the alarm and anxiety of friends, that a number of physicians are simultaneously sent for. Under these circumstances, courtesy should assign the patient to the first who arrives, who should select from those present any additional assistance that he may deem necessary. In all such cases, however, the practitioner who officiates should request the family physician, if there be one, to be called, and, unless his further attendance be requested, should resign the case to the latter on his arrival.

7. When a physician is called to the patient of another practitioner,* in consequence of the sickness or absence of the latter, he ought on the return or recovery of the regular attendant, and with the consent of the patient, to surrender the case.

8. A physician, when visiting a sick person in the country, may be desired to see a neighboring patient who is under the regular direction of another physician, in consequence of some sudden change or aggravation of symptoms. The conduct to be pursued on such an occasion is to give advice adapted to present circumstances; to interfere no further than is absolutely necessary with the general plan of treatment; to assume no future direction unless it be expressly desired; and, in this last case, to request an immediate consultation with the practitioner previously employed.

9. A wealthy physician should not give advice *gratis* to the affluent; because his doing so is an injury to his professional brethren. The office of a physician can never be supported as an exclusively beneficent one; and it is defrauding, in some degree, the common funds for its support, when fees are dispensed with, which might justly be claimed.

10. When a physician who has been engaged to attend a case of midwifery is absent and another is sent for, if delivery is accomplished during the attendance of the latter, he is entitled to the fee, but should resign the patient to the practitioner first engaged.

* The expression, "patient of another practitioner," is understood to mean a patient who may have been under the charge of another practitioner at the time of the attack of sickness, or departure from home of the latter, or who may have called for his attendance during his absence or sickness, or in any other manner given it to be understood that he regarded the said physicion as his regular medical attendant,

REVIEW.

A practical treatise on Materia Medica and Therapeutics. By Robert Bartholow, M.A., M.D., LL.D., Professor of Materia Medica and General Therapeutics in Jefferson Medical College, New York: D. Appleton & Co., 1887.

Of the many medical writers of which the United States can boast, there are few, if any, of a more practical turn of mind than the author of this volume. In whatever direction his investigations may proceed, there is but one object they have in view, and that is, that they shall lead to practical results. He is, moreover, no skeptic as regards the power of medicine to produce results; on the contrary, he is a firm believer on the therapeutics of medicine. With such qualifications, Dr. Bartholow could not but make this volume a valuable one, and it is valuable not only to students but to practitioners.

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